# PREACHING AND TEACHING BIBLICAL PRINCIPLES ON HEALTH THAT LEADS TO CHANGE IN ATTITUDE TOWARDS DIETARY HABITS

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# Faculty Approval Page Doctor of Ministry Final Project Dissertation

Preaching and Teaching Biblical Principles on Health
That Leads to Change in Attitude
Towards Dietary Habits

by

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United Theological Seminary, 2010

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This project addresses how preaching/teaching biblical principles on health practices in the Maranatha Seventh-day Adventist Church, in Cincinnati, Ohio led to attitudinal changes toward dietary reform. The project was guided by the assumption that biblical intervention would have resulted in positive lifestyle changes. Participants were invited to attend a seven-session series of preaching/teaching. The methodology used a pre and post test to analyze the data. The project concluded that seventy-eight percent of participants employed dietary principles in full, twelve percent reported the same in part while the other ten percent did not apply dietary principles.

#### ACKNOWLEDGMENTS

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I am not sure what words I can use to capture the intimate relationship, practical wisdom, and fatherly love that Uncle Haynes Browne shared with me, except to say, that I love him with all my heart, because he modeled for me, the kind of man, I wanted to become. My gratitude to him is immense.

But who can replace my dad and mom, Mr. Coleridge and Mrs. Velva Burton, for nurturing myself of confidence, and for providing the moral foundation, that has sustained all these years. To them, I say, thank you. To Carrel, Carolyn, Lora, Laukland, Leroy, Anon, Aminga, Norbert, and Seth-- my siblings-- I thank you for the many experiences of brotherly encouragement and sisterly love that all of you have given me.

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## **DEDICATION**

This work is lovingly dedicated to my Mom and Dad, whose parental riches kept me alive and inspired – Mrs. Velva Burton and the late Coleridge Burton. This work is also dedicated to my Uncle Haynes Browne, to my wife Shelia, and my sons, Lloydston II, and Cameron who embody the values of perseverance, commitment to excellence and healthy laughter that has become part of our family tradition.

#### INTRODUCTION

Preaching and teaching biblical principles on health is the focus of this project.

Preaching and teaching is called the "right arm" of the gospel in the Seventh-day

Adventist Church. However, many of the church members are not conforming to the principles of health, thus they suffer similar health problems that affect the general population, who do not adhere to the principles of health. The purpose of this project, therefore, is to preach and teach biblical principles on health.

The intention is to inform those who lack knowledge and to encourage those who are struggling with bad lifestyle habits to make an attitudinal change and live a more healthy and prosperous life.

Chapter one, Ministry Focus, amplifies the rationale for preaching and teaching principles on health, and the cultural context that initiated the study. It brings into account the professional competence of the researcher to preach and teach and to facilitate change.

Chapter two, The State of the Art in Ministry, captures the literature, technological tools, visual and the variety of research methods that was employed to inform the researcher in preaching, teaching and leading.

Chapter three explores the Theoretical Foundation and gives the historical, biblical, and theological rationale to validate the study.

Chapter four focuses on the methodology. It presents the model that is utilized in the project. It highlights the research method such as the seven sermons preached/taught, with a pre-test and post-test questionnaire.

Chapter 5 focuses on the Field Experience, by describing how the project is implemented and the methodology used to collect, analyze and evaluate the collected data.

Chapter 6 contains the reflection, summary and conclusion of the researcher's analytic thinking.

### **CHAPTER ONE**

#### MINISTRY FOCUS

The researcher began his pastorate at the Maranatha Seventh-day Adventist

Church on October 15, 2004. He was assigned to the church based on its needs and his
ministerial experience. Prior to his arrival from the Caribbean, the local Conference

President indicated that this researcher would not serve in a technological, glistering, and
glamorous edifice with a vibrant and enormous membership. Instead, the church was
depicted as a dilapidated two centuries old building, in a volatile poor community, with a
weekly church attendance of less than twenty elderly adults in need of resuscitation.

Apparently, the need for an individual with a proven track record in church growth,
building and renovation projects facilitated the writer being brought to the United States.

If his efforts failed within the first two years, permanent closure was imminent.

In order to nurture the church into a healthy viable congregation, the Conference President suggested addressing several problems. First, there was a need to facilitate the healing of painful relationships between members, reconciling the lingering hurt from past administrations. This meant mending the broken bond between the local members, who felt abandoned. Second, it was essential that the congregation engage in evangelistic endeavors as means of church growth and developing a working and active church community. Third, the renovation of the crumbling infrastructure of the physical plant was seen as critical.

While the researcher was intimately familiar with struggling churches and building projects indicative of poor third world countries, he was unaccustomed to the

lack of member participation that plagued this church. All of his previous churches had large congregations of over five hundred members with abundant human and/or financial resources. Members provided the labor and technical skills required for completing tasks, often free of charge. Their offerings and sacrifices also supplied the funds needed, yielding project budgets in the hundreds of thousands of dollars.

This new assignment posed a different challenge. The membership was a skeleton of its former self. The majority of members were retired and on fixed or limited income. Those who had technical skills were too old and feeble to offer assistance. Their spirit was willing, but their flesh was too weak. The next largest group, the children lacked initiative, motivation and energy.

Despite these challenges, the writer began to train, equip, and empower members by offering numerous workshops. These seminars included training in the following areas: leadership, conflict management, stress management, grief, homiletics, and evangelism. As a result, conflicts between members greatly subsided. A diagnostic spiritual gift inventory was employed to identify members' spiritual gifts and areas of church work. Members assumed new and difficult roles. Members also actively supported and engaged in church growth events. As a result, over sixty individuals were baptized into the church. A company was also hired to renovate the disintegrating exterior of the church building. Today, the church is a more caring, loving, and warm environment. As an older member poignantly expressed, "We are finally off death row."

The results of these seminars and other projects during the last three years have been gratifying. God deserves the glory and praise for all these successes. However, the work is not finished. The church has now moved into the next phase of remodeling the interior, maintaining church growth and conservation, increasing and improving spiritual activities, developing and sustaining community outreach events, and continuing the restoration of painful relationships.

These broken relationships have manifested themselves in eating disorders. A significant portion of the membership is encountering health problems. Among the health issues that plague the membership are cancer, hypertension, heart disease and diabetes.

Most of the funerals the writer has conducted since he came to this church district are related to either cancer or heart disease. He, therefore, was convinced that the greatest need in the Maranatha Seventh-day Adventist Church is to develop a holistic health ministry where dietary reform coupled with exercise, water, sunlight, temperance, fresh air, rest, and trust in divine power becomes the conduit to more healthy lifestyles. These eight health principles have proven to be successful. Seventh-day Adventists believe that the principles of health enunciated by Ellen G. White have contributed greatly to the health education of their church.

Based on this belief, the researcher has endeavored to preach and teach dietary reform to prevent life-style diseases. The assumption was that when the members of the Maranatha Seventh-day Adventist Church listen to these biblical, prophetic and scientific data in health reform, there will be an attitudinal change. They will practice healthier life-styles, ultimately, becoming stronger physically, mentally, and spiritually.

### Rationale for the Health Care Evangelism

The Seventh-day Adventist Organization has long asserted as part of its theological history and prophetic tradition that the health care message is the right hand of the gospel. E. G. White, a noted church spiritual leader, advanced this idea one hundred and fifty years ago. Yet, the church's health care message has always been centered on terms of lifestyle changes as part of its identification criteria, but never as a central evangelical approach effort. This research is an attempt to correct this deficit.

Unlike Family Life and/or Daniel and Revelation frameworks which seek to advance the Seventh-day Adventist belief system by making direct connections with its theological heritage, primarily grounded in a biblical hermeneutics, this research as a point of departure provides a practical approach to evangelism. It uses health reform and dietary reform as the only template or sole conduit to teach the love of God and to espouse a grace filled idea of self transformation. Accordingly, this research assumes that the core of kingdom living is brilliantly expressed in the vision the New Testament outlines. That is, that God's vision is one that wishes for his children, prosperity and good health. However, this vision is tied to the fact that our bodies are sacred features portrayed as the temple of the Lord, and that we are wonderfully and fearfully made. Taken together, these Biblical references offer a common theme that has wider meaning for Christian living than what mere personal piety allows.

In a post-modern era where relativity is seemingly the big concept in every philosophical treatise, an effective evangelism approach must of necessity meet people's needs by offering clues to new constructive possibilities around a heightened universal consciousness that accepts holistic modes of caring for body, mind and soul. On such

foundations, one finds a wide spectrum of ideas from writers who either through scholarly undertakings or advocacy work, combine traditional and non-traditional forms of wellness living, to address the quality of life concerns which have overwhelmed so many people all over the world. Because diseases and natural disasters give rise to insecurities around the dysfunctions of life, even after science has made curative advances, health care evangelism can provide Christian preachers with helpful resources to reconstitute life in a positive direction.

Stated in less ad hoc fashion, the practical aspects of Healthcare Evangelism help to supply ethical guidelines and moral resources so that Christians can begin to articulate a future of transformative possibilities. Simply put, the love of God is best experienced not in doctrines and traditional rituals, as important as these are for religious life, but in the power of the laws of nutrition that cohere with the basic principles of ecological justice, which in turn, requires a stewardship of responsibility so that life as we know it can continue to flourish.

Health Evangelism purports ways to address fully the gospel as seen through the prism of quality living. It is a direct attempt to avoid the suspicion that emerges from traditional forms of evangelism, which are geared to promote religious faith/heritage crowned in doctrinal garments. Instead, Health Evangelism offers a corrective appeal that is common to many while fundamentally changing our idea about how we should undertake the holy task of reaching the unreachable and spreading the good news of the Gospel.

Ultimately, the research designs wellness modules in sync with what Dr. Isaac Newton says about sustainable health. He asserts that "prevention is not better than cure. Rather, prevention is the only cure to the many life choices and dysfunctions that ravish so many people's lives." Not surprisingly, the Bible prescribes a particular brand of living, and pitches it in terms of making a choice between death and abundant living. These basic principles regarding Health Care Evangelism are developed from careful analysis of relevant Biblical passages. It is anticipated that a thoughtful acceptance of this approach to evangelism will help lay persons and pastors develop a creative way of reaching out to persons, who would not otherwise accept their faith. But faith packaged as Healthcare Evangelism may assist many to come to appreciate the love of God, which is manifested in the holistic approach to holiness that the Bible advocate and that Health Care Evangelism captures effortlessly.

#### **CHAPTER TWO**

#### THE STATE OF THE ART IN THIS MINISTRY MODEL

This chapter is a reflection that the writer has spent a significant amount of time reading an inordinate amount of material on preaching and teaching biblical principles on health for this project. After studiously analyzing and processing the relevant information, this writer has decided to include in this review a summation of the following titles. Since there is a leadership aspect to this ministry focus, the literature reviewed will also include material on leadership.

An overview of the literature review of this chapter will indicate that the writer is familiar with material on preaching and teaching biblical principles on health and has developed a keen understanding of the information required by the course on preaching and leadership. Consequently, there are some autobiographical works that were reviewed and were used in the process that give what Dr. Ricky Woods and Dr. Terry Thomas called a "water shed moment" of how this work developed and was presented.

## The Purpose Driven Life - Rick Warren

In his book *The Purpose Driven Life*, Rick Warren begins with the premise that everything started with God and finds its purpose in Him. Before the creation of mankind, God had everyone in mind and had a purpose for their life. In order to find the purpose of one's life, one must go back to the God who created him and find the reason for his existence. He claims, unless one finds God's reason for his existence, he will never be able to make sense out of his life.

Warren attempts to take the reader through a 40-day spiritual transformative journey, which will answer the question surrounding one's purpose for existing on earth.

This question resonates with the writer who believes that part of his purpose is to find a health evangelism module that is built on wholeness, a healthy body, mind and spirit.

## From Hurt to Healing, A Theology of the Wounded – Andrew Sung Park

Andrew Parks discusses the need for a theology of the wounded since both believers and non-believers suffer pain. He gave several illustrations of people who have suffered. He argues against Gustavo Guterrez's Liberation Theology of linking salvation and liberation. Park's premise is that salvation and liberation are two separate issues.

First salvation is for sinners and second, liberation is for the sinned against. His resolution then is that Christian Theology must address the salvation and liberation needs of the oppressed. This inspires the researcher to find a method of preaching and teaching principles of health that is relevant to both the salvation and liberation of those, who are physically and spiritually wounded with health problems.

## The Power of Vision - George Barna

George Barna points out that vision is an important element of effective ministry. He suggests that in order for vision to work, it must be clear, futuristic, practical and realistic, and that God's chosen leader must be the mouth-piece for it. In addition, the vision must be based on a correct comprehension of God, and one's circumstances. Unless God gives the vision and direction, success will be extremely limited. Conversely, the lives of leaders who do not follow God's direction usually result in chaos, tiredness and are ineffective. He confirms that every successful church has a visionary leader. On

the other hand, where there is no visionary leader, the membership decreases and spirituality wanes. For the researcher, success in the project necessitates seeking God for a vision to be successful in all endeavors.

## Pastoral Leadership - Robert Dale

Robert Dale outlines a complete reference book to aid pastors in solving problems within their churches. He provides biblical based, practical, and technical tools for adequate leadership. He presents five leadership styles in which servant-hood is the main style used, and Jesus is the ideal model. Then he uses four psychological profiles of leadership models that are used in the corporate world.

First, the catalyst/effective style concentrates on developing proper relationship with both people and mission. Second, the commander/efficient style mainly concentrates on goals; not on missions. Third, the encourager/empathetic style emphasis is on people, not goals. Fourth, the hermit/eroding style is based on self-preservation. Dale also shows how all these styles can extend appropriately in conflict resolution, pursing change, casting vision, channeling resources, good governance, team building and as a motivational tool. Finally, he shows how to balance ministry to avoid burnout. These skills are necessary for effective leadership as this researcher implements his project.

# Design for Preaching - H. Grady Davis

Davis' new homiletic approach to sermon preparation goes beyond traditional models of sermon preparation. Instead of being concerned on how the sermon is put together, Davis advocates the importance of how the sermon grows. His concept of a good sermon is a sermon that grows out of a single idea. The idea is that the substance emerges from a larger form. The strength of the sermon depends on the clarity of the

main idea rather than cunningly constructed material. Moreover, emphasis is placed on biblical preaching that encompasses both form and substance. His sermons answer the questions of the how, why and what of preaching. This author aids the writer to prepare clear and focused messages to capture the health evangelism message desired.

### Our God is Awesome - Tony Evans

Tony Evans attempts to share a knowledge of God and how a careful study of the Word brings salvation. He acknowledges that there are several limitations in knowing God. First, there is the limitation of the mind which is unable to understand God. Second, sin in our lives limits our ability to grasp divine revelation. Third, a problem exists with resource, our inability to know all the mysteries of God. Despite such limitations, his purpose is to prepare the foundation to discuss some important truth about God. Through studying, people may taste and see that God is good. Consequently, an atheist may be convinced of the existence of God. Finally, having a personal knowledge of God, God's influence will spread to others. Thus, both he and those he comes in contact with will be able to say that God is awesome. Through studying and knowing God, the author's aim is that mankind will have salvation through Jesus. The writer believes that God made our awesome body for his glory, thus we have a responsibility to be good stewards of God's awesome creation; our body.

# No Longer Slaves -Galatians and African American Experience - Brad R. Braxton

Brad Braxton's idea of no longer slaves was born out of a desire to research and authentically offer a reading of the New Testament which seriously encompasses the entire experiences of African Americans. He attributes his (water-shedding) moment to reading the text in Galatians. 4:7. He views a significant amount of African Americans as

physically emancipated but ideologically either consciously or subconsciously enslaved to white ways of thinking and being.

He thinks the resolution is found in an ideological liberation statement, which Paul provides in Galatians 4:7, no longer a slave. His two-pronged solution is first, reading the ancient letter in ways that shine as a light of liberation upon the African American contemporary trends. Second, he fulfills the need to make a contribution in interpreting the New Testament in the relevant context of the African American experience. This challenges the researcher to be faithful to the African American context.

### Becoming a Fruit-Bearing Disciple – Terry Thomas

Terry Thomas describes the process of how one becomes a fruit-bearing disciple. He begins by sharing that this initial concept grew out of the rapid numerical growth of his congregation and the belief that the church had a responsibility to establish a process to develop mature disciples. One of the biblical models studied was Luke 6:13 where the Apostles act as a go between to settle a routine transaction. Lay people were identified as the go-between to engage their friends, relatives, associates at work, and neighbors.

In order to develop fruit-bearing disciples, it was Thomas' views that intentional training is an imperative. Vacation Bible School was the avenue chosen for preaching and teaching. To implement this process meant that the fruit-bearing disciple must understand the implication of the great commission, cost of discipleship, how to follow Jesus, the thought process of the disciples, maintenance of discipleship, the heart of the disciple, and the joys of discipleship. Finally, there is the process of evolution where the fruit-bearing disciple is transformed into a disciple of Jesus who involves character change,

effort and personal growth. This is a model worth replicating in the process of the researcher's discovery.

# Professional Development as Transformative Learning, New Perspective for Teachers of Adults – Patricia Cranton

Cranton points out that the traditional ways of adult and continuing education was based on experts imposing their ideas on learners without developing their personal advancement. Cranton suggests to be competent in one's field necessitates growth and change in professional practice. She builds on the model of transformative learning pioneered by Mezirow and Brookfield and their proponents of this theory. She sees the model of critical thinking as being self-direction, a method where adult educators galvanize their own academic growth. Transformative learning is a realistic development on a continuous practice, by examining assumptions, value, and perspectives. She advocates independence in thinking, taking the best practice from the past yet being willing to make present and future changes in the interest of adult learning. The researcher concurs with this progressive model which propels him to advocate for change in health principles.

# Reaching Out Without Dumbing Down: A Theology of Worship for the Turn-of-the Century Culture – Marva J. Dawn

Marva Dawn seeks to bring order to both traditional and contemporary styles of worship. She attempts to gain insight into the culture of the faith traditions and provide them with the relevant liturgical guidance for their worship service. In each chapter, she gives an analysis of the perceived problem then offers solutions, diagnoses, therapies,

descriptions and prescriptions to resolve these problems. This analysis is a good tool to evaluate one's work. Also, finding a solution is a useful tool for the writer of this project.

## The Certain Sound of the Trumpet – Samuel D. Proctor

Samuel Proctor provides proper guidelines for the topic of sermon preparation. Much emphasis has not been placed on organization and structure; however, there are many other literary devices that are helpful in sermon preparation. The one that is most outstanding is the way he masters the use of illustrations. This is a helpful tool for the researcher in this project.

# Ancient Israel: Its Life and Illustration - Ronald deVaux

Ronald deVaux, in his book, *Ancient Israel*, gives a comprehensive overview about the systems, social structures, institutions, and customs of ancient Israel. His keen understanding of that ancient culture gives the researcher a better understanding of the biblical context of the Old Testament. Thus, the understanding of the Old Testament becomes more relevant in preaching and teaching as used in this project.

### With Head and Heart - Howard Thurman

The autobiography of Howard Thurman deals with his spiritual journey from his childhood days in Daytona Beach, Florida where he had to combat poverty, discrimination and racism. However, he never succumbed to the negative elements in life. He discusses how God providentially opened doors for his education at a boarding school, Morehouse College and Colgate-Divinity School in New York.

His book describes the paradox between his social and spiritual life. Yet, despite the social indignities he encountered, he was able to maintain a high spiritual plane and lived his life with passion and commitment. Ultimately, he was able to break racial barriers in his professional life and ministry. This story inspires the researcher to live out his dreams with passion and a deep spiritual/intellectual commitment.

## The Web of Preaching New Options in Homiletic Methods – Richard L. Eslinger

Eslinger speaks of preaching in the midst of remarkable renewal in the churches, which has become the subject of many homiletic writers. The most important facet is the voice of the laity prioritizing competent preachers. He attributes productivity to the ministry of proclamation. He also asserts that the strong women emerging in the pulpit as a major factor. Another additional factor is the preaching to multicultural, ethnic minorities. He then identifies the African American church that have resources as a propelling force towards renewal.

Eslinger talks about two methods of the homiletics. First, the Old Orthodoxy Method, which is not now working well. Second, he talks about new homiletics model that began to emerge in the 1960's to the present. This new model has three elements, inductive, narrative and a method based on movement. He identifies a fourth method, the work of David Buttrick, where he plants the language in the mind of the listeners. His final word of caution is that we organize the sermonic plot. The researcher was challenged with the in-depth knowledge of Eslinger and his honesty and intends to extrapolate the best of these methods.

# Leaves from the Tree of Life: Vegetarian Whole Foods Cookery And Health Manual – Lee Heathman and Mildred A. Tillotson

Heathman and Tillotson in their book *Leaves From the Tree of Life* did a unique work in combining the NEWSTART program which is nutrition, exercise, water, sunlight, temperance, air, rest and trust in Divine Providence, with the complimentary

vegetarian whole foods cookery and health manual. These vegetarian diets are intended to maximize optimum health. It is a unique work in that it makes it easier for an individual who wants to practice a vegetarian diet. Recipes are available for every meal, and it provides a wide range of options. This book is very beneficial to the researcher in finding healthy and tasty meals.

## Ministry of Healing - Ellen G. White

In the book *Ministry of Healing*, Ellen G. White points out that because of the sin problem, wherever mankind exists there is sickness and suffering. She suggested that the creator never intended man to be weighed down in sickness, suffering and pain. She added that such sickness and suffering are a consequence of man's flagrant violation of the laws of life and health. In order to remedy sickness and disease, man must understand and practice the laws that govern the body and nature. Whenever sickness comes, the individual must co-operate with the laws of nature in order to maintain good health. It is recommended that a spiritual relationship is established with the Creator who becomes a balm in Gilead to heal the sin sick soul. The researcher concurs that mankind need to abide by the laws of life, nature and live to enjoy optimum health.

#### Counsels on Diets and Foods – Ellen G. White

Ellen White in her book *Counsels on Diets and Foods* a compilation on her writings since 1863 on the comprehensive vision she received on health reform. It also involves other writings she made in journals, pamphlets, and books in which she gave counsel to the Seventh-day Adventist denomination. This book was first compiled in

1926. In this book she points out that there was a correlation between what one eats and how it affects the individual physically and spiritually.

Initially, the main purpose of this book was to serve as a textbook for students who were in the discipline of dietetics at Loma Linda College of Medical Evangelism.

Instruction was given not to conveniently select what was expedient, but to apply the holistic principles. There was a call for everyone to be comprehensively educated on the best dietary practice. There was also warning about the hazards of taking extreme positions on dietary reform. It was advised that decisions of dietary reform and nutrition should be made on sound principles, which would enhance the individual spiritually, physically, and mentally.

This book has inspired the researcher not to accept any information on dietary reform at the surface level, but research deeper to inquire whether the information is authentic.

### **CHAPTER THREE**

### THEORETICAL FOUNDATIONS

#### **Historical Foundation**

To get a clear understanding of the historical development of the Seventh-day

Adventist Health Reform Message, there are five questions that must be answered about
the main contributor, Ellen G. White. First, who was Ellen G. White? Second, what
influenced her thought on dietary restrictions? Third, how did she communicate her
views to the church? Fourth, how did the church institute her practice? And finally how
science confirms the health principles that she advocate?

Douglas quotes Stoy and Lerlani Proctor who attempts to give an overview on the work and ministry of Ellen White. He points out:

The health and lifespan advantages of the Seventh-day Adventist Church have been traced to the way they live and eat. Since the 1800s, Adventists have practiced eight secrets of health that reduce their risk of heart disease and cancer . . . . the two leading cause of premature death. By keeping the two killers at bay, Seventh-day Adventists enjoy greater health and longer life than the general population . . . . The scientific confirmation has just been available in recent years, so how did they know before the scientists? From a woman called Ellen G. White. The visionary said God did not want his people to suffer unnecessary illness and death and He inspired her to tell people how they could enjoy maximum wellness. Ellen G. White wrote with amazing simplicity and accuracy what has since proven to be the best formula for health and longevity. \(^1\)

Addressing the question, who is Ellen White, T. Housel Jemison in his book, *A Prophet Among You* writes:

<sup>&</sup>lt;sup>1</sup> Herbert E. Douglas, *Messenger of the Lord: The Prophetic Ministry of Ellen G. White* (Nampa, Idaho: Pacific Press Publishing Association, 1998), 320.

Born November 26, 1827, to Robert and Eunice Harmon at their farm home a few miles from Gorham Maine. Ellen came from an ancestry of hardy New England pioneers. She was one of twin girls in a family of eight children. Robert Harmon gave up farming when the twins were about seven years old, and the family moved to Portland, Maine, where the father took up his trade as a hatter.<sup>2</sup>

At a very early age, she had a major tragedy in her life. Jemison adds:

When she was nine, Ellen was severely injured by a stone thrown by a schoolmate. The accident nearly took her life, and its effects were felt for many years. She was so physically weakened that it was impossible for her to continue her schooling. Eager for an education, she made several unsuccessful attempts to further it. However, she received training in household duties, and in her own home continued to develop mentally in spite of ill health.<sup>3</sup>

Her spiritual journey began at a very tender age. "At the age of twelve, she was baptized by immersion, at her own insistence, and received into membership in the Methodist Church."

As a sincere seeker of biblical truth, her convictions led her to follow the prophetic preaching of a Baptist preacher named William Miller. The record states:

In March, 1840 and again in June 1842, Ellen Harmon, with other members of the family and friends, listened to the preaching of William Miller . . . . convinced that his reasoning on the fulfillment of the prophecy was correct. . . . He supported his statements and theories by scripture proof as he progressed.<sup>5</sup>

<sup>&</sup>lt;sup>2</sup> T. Housel Jermison, *A Prophet Among You* (Boise, Idaho: Pacific Press Publishing Association, 1955), 203.

<sup>&</sup>lt;sup>3</sup> Ibid. 203, 204.

<sup>&</sup>lt;sup>4</sup> Ibid. 204.

<sup>&</sup>lt;sup>5</sup> Ibid. 205.

Consequently, "The acceptance of Miller's teachings by the Harmon family led to their being disfellowshipped from the Chestnut Street Methodist Church in 1843."6

An important moment in Ellen Harmon's life was, "On August 30, 1846, Ellen Harmon was united in marriage to James White, a young Adventist preacher who had been active in the Millerite Movement."<sup>7</sup>

As a mother, "Ellen had four children, all boys: Henry, born August 26, 1847; Edison, born July 28, 1849; William, born August 29, 1854; and John Herbert, born September 20, 1860."8

What influenced Ellen White's thought on dietary restriction?

The main influence that Ellen White had on dietary restriction was special revelation in prophetic visions. As early as "1844, Ellen Harmon had received what she and others of the advent group recognized as a revelation from God."9

Between 1844 and 1848 many visions were given to guide the church in general spiritual matters. However, the pivotal influence of her visions came in when "In 1848 Ellen White was given a vision in which tea, coffee, and tobacco were condemned."<sup>10</sup>

To complement the first instruction, she was shown on dietary reform in 1848; a major comprehensive vision was given in 1863 on diet and health reform.

<sup>&</sup>lt;sup>6</sup> Ibid.

<sup>&</sup>lt;sup>7</sup> Ibid. 206.

<sup>&</sup>lt;sup>8</sup> Douglas, 57.

<sup>&</sup>lt;sup>9</sup> Jemison, 205.

<sup>&</sup>lt;sup>10</sup> Jamison, 227.

This research is designed to study the dietary lifestyle practice by the Seventh-day Adventist Church for over a century reviewing the health reform principles advocated by their visionary leader Ellen White. This allows one to gain the relevant instruction and information that led practitioners of these health principles to live healthier and longer life. More remarkable, information has been confirmed over a century later by modern scientists

In reviewing the role of Ellen White and the origin of her health reform principles, Herbert Douglas in his book *Messenger of the Lord: The Prophetic Ministry of Ellen G. White* states:

In reviewing Ellen White health reform principles, readers should first place themselves in the middle of the Nineteenth Century. Without anymore information about the future than the prevailing notions that governed medical practice at the time, think of how strange the unfolding, synthesizing, integrating health principles of Ellen White must have seemed. Of course, some of these principles had been promoted by contemporaries, but in no place were they so complete or so integrated. No other writers were so free from those errors that subsequent research contradict.<sup>11</sup>

To get a further insight into what the medical conditions were like in the middle of the Nineteenth Century, Dores Robinson suggests in her book *The story of Our Health Message: The Original Charter, and Development of Health Education in the Seventh-day Adventist Church*, that

These were times when the general public was quite ignorant concerning physiology and hygiene. The story of how God led his people to an understanding of the laws of nature which he had established to govern the human body is a thrilling. . . . The vision given to Ellen White in 1863 calling for radical changes in the personal living habits of the church members to the development

<sup>&</sup>lt;sup>11</sup>Douglas, 320.

of a medical work which now belts, with special emphasis on training centers for health education. 12

In the middle of the Nineteenth Century . . . . people generally saw no connection between their lifestyle and disease. . . .In many of these areas, as recent as a few decades ago, Ellen White seemed not only extreme, but even fanatical. . . .The record is in however. Those who followed her role as God's messenger, those who faithfully put her health principles into practice, became healthier, stronger, and more productive people. To the extent that people pick and chose which principles they would incorporate into their life style, to that extend they fell short of reaching their full potential. <sup>13</sup>

## **Early American Health Care**

The early health care system in the early to middle of the Nineteenth Century was a general time of ignorance. Robinson mentions:

Just at the turn of the Nineteenth Century George Washington was stricken with a sickness that in a few days was to prove fatal. As soon as he realized that he was seriously ill, he sent – not for a physician - but for a 'bleeder', who took from his veins about fourteen ounces of blood. The next morning the family physician was called. . . .he directed a second copious bleeding. . .when about thirty two ounces of blood was drawn, without the slightest alleviation of the disease. . . .It is not surprising to learn from contemporary report that Washington's last request, understood with great difficulty because of his weakness, was to be permitted to die without further interruption. <sup>14</sup>

There were bitter controversies in the medical field concerning appropriate treatment for disease. Dr. Worthington Hooker, a medical doctor in his article "Rationale Therapeutics" reported on Dr. Tully, another medical doctor, who opposed the bleeding method. He commented that:

<sup>&</sup>lt;sup>12</sup> Dores E. Robinson, *The story of Our Health Message: The Original Charter, and Development of Health Education in the Seventh-day Adventist Church* (Nashville, TN: Southern Publishing Press, 1943), 5.

<sup>&</sup>lt;sup>13</sup> Douglas, 320.

<sup>&</sup>lt;sup>14</sup> Robinson, 13.

Dr. Tully retorted: 'The lancet is a minute instrument of mighty mischief . . . . The King of Great Britain loses every year more subjects by this means [That is by bleeding] than the battle and campaign of Waterloo cost him, with all their glories.' 15

Hooker continued by making reference to other controversial methods of treating disease with drugs and opiates. Among the remedies used were:

The combination of calomel, antimony, and opium, which in various preparations is now so much used, is a remedy of very great value in the treatment of certain inflammatory diseases . . . mercury is a remedy of great value in the treatment of many chronic diseases. . . [Bleeding] has been in some quarters too much given up . . . For a long time the doctrine of profession was . . . That the patient must sleep or die, and that the grand means of securing sleep was opium . . . The profession were right in regard to the first clause of this doctrine . . . but they were wrong in regard to the necessity of opium to produce this result. The agitation can be quieted by other means, as alcohol, for example. . . [For colic and intermittent fever] quinine is often given much more freely than it formerly was. <sup>16</sup>

Because of the potency of these drugs, discrimination was urged as a method of caution.

"Although it is true that by this time (1858) the dangers of excessive use of the more potent drugs were recognized by observant physicians, only a very few had the courage to discard the use of drugs altogether. Dr. Worthington Hooker, who, as we have quoted, set forth what he regarded as "rationale therapeutics." In his book by that name, advocated the "discriminatory use" of these drugs and even bleeding." "17

<sup>&</sup>lt;sup>15</sup> Worthington Hooker, M.D., *Rationale Therapeutics* (Boston, MA: John Wilson and Sons, 1857) 13-14.

 $<sup>^{16}</sup>$  Ibid. 23 - 36

<sup>&</sup>lt;sup>17</sup>Robinson, 17.

According to Dr. Jacob Bigelow, a medical doctor, in his book, *Brief Exposition* of *Rationale Medicine*, "few medical men had the courage to incur the responsibility of omitting the more active modes of treatment which were deemed indispensable to the safety of the patient." <sup>18</sup>

Ronald Numbers in his book *Prophetess of Health* quotes Dr. Oliver Wendell Holmes, a professor in anatomy at Howard University in 1860 sharing his skepticism about medicine. He admitted that "If whole materia medica as now used, could be sunk into the bottom of the sea, it would be better for mankind – and all worse for the fishes" <sup>19</sup>

In the Nineteenth Century, a reform movement began to emerge known as the Jacksonian era. Dr. James Jackson of New York sought new, creative, and innovative ways of treating his patients. He became disillusioned with the use of drugs in his medical practice. After working over two decades in medicine he wrote:

In my entire practice I have never given a dose of medicine not so much as I should have administered had I taken the homeopathic pellet of the seven millionth dilutions, and dissolving it in a Lake Superior, given my patients of its water. . . I have used in the treatment of my patients the following substances or instrument – abilities: First air; second, food; third, water; fourth, sunlight; fifth, dress; sixth, exercise; seventh, sleep; eight, rest; ninth, social influences; tenth, mental and moral forces. <sup>20</sup>

 $<sup>^{18}</sup>$  Jacob Bigelow, *Brief Exposition of Rationale Medicine* (Boston, MA: Philip, Samson, and Co., 1858) 62 – 63.

<sup>&</sup>lt;sup>19</sup> Ronald Numbers, *Prophetess of Health*, (New York: Harper and Row Publishers, 1976) 49.

 $<sup>^{20}</sup>$  James C. Jackson,  $\it How\ to\ Treat\ the\ Sick\ Without\ Medicine}$  (New York: Fowler and Wells, 1868) 25, 26.

#### The Reform Movement

Another thing that influenced White was the reform movement with the adverse effect of drug treatment by physicians in the early part of the Nineteenth Century:

There were trends in and movements in the direction of progress. Both in European countries and the United States were experimenting and were finding out better ways of living and of treating the sick. Prominent physicians were becoming enlightened and were sounding warnings against the common practice of administering powerful and toxic medicines.<sup>21</sup>

This gave birth to alternate methods of finding new cures for disease and healthier lifestyle.

Some of the changes in the Jacksonian era affected almost every facet of

American life. Douglas summarizes these changes:

Emotional, human-centered ideas overtook the rationale, classical order of the preceding century. Fresh optimism and the sense of equality of all human beings inspired 'reforms' in such areas education, prisons, abolition of slavery, women's rights, politics, and health. . .<sup>22</sup>

Talking about the reform movement, Douglas continues:

In this exhilarating era optimism and its new focus of the 'common man,' such health reform movements as the following sprang up everywhere: The temperance movement, promotion of vegetarianism, public renunciation of 'all evil habits,' (tobacco, alcoholic beverages, tea, coffee, etc.,) development of 'physiological' societies, emphasis on public health, including sanitation and hospital, new attention to fashion, and the emergency of 'water' treatments.<sup>23</sup>

<sup>&</sup>lt;sup>21</sup> Robinson, 28.

<sup>&</sup>lt;sup>22</sup> Douglas 279.

<sup>&</sup>lt;sup>23</sup> Douglas, 279.

This was a period of excitement and great anticipation. The winds of change were in the air. Robin in his discussion of this period gave the following account:

It was during this period of general ignorance of the law of life and health that the youthful pioneers of the Advent Movement were laying the foundation of a work that was necessary to fit men and women for translation at the second coming of Christ. And for that fitness it was necessary that there be not only a spiritual and mental, but also a physical, reform.<sup>24</sup>

During this sweeping reform, Ellen White was given her first health reform vision in 1848. The vision was limited in its scope; however, it addressed only three major health issues. As stated earlier, Mrs. White was "shown the harmful effects of tobacco, coffee and tea."

Concerning the use of tobacco, statistics compiled by the Center for Disease

Control and Prevention cited in *USA Today*, October 29, 1996 indicated that there is a

link between smoking and cancer. The study acknowledged that lung cancer was

common among the service men of World War I. It suggested that it takes approximately

20 years to see the clear results of cancer production. The study admitted that 418,000

people died in the United States from smoking related cancers. A report from the

Surgeon General, U.S. Department and Human Services, 1990, on the Health Benefits of

Smoking Cessation, claims that if the trend of cigarette smoking is not reversed, it will

result in ten million deaths by 2025. In 1864, Mrs. White claimed that tobacco is a

<sup>&</sup>lt;sup>24</sup> Robin, 23.

<sup>&</sup>lt;sup>25</sup> Review and Herald, November 8, 1870.

<sup>&</sup>lt;sup>26</sup>Center for Disease Control and Prevention, cited in *USA Today*, October 29, 1996.

<sup>&</sup>lt;sup>27</sup>Health Benefits of Smoking Cessation, A Report of the Surgeon General, U.S. Department of Health and Human Services, 1990.

poison of the most deceitful and malignant kind. . .a slow poison . . . . 28 "I have seen in vision that tobacco was a filthy weed, and it must be laid aside and given." 29 She was giving spiritual guidance to those who struggle with these stimulants. Now science validates her spiritual counsel. Concerning this, Douglas wrote:

All such are stimulants and narcotics as tea, coffee, tobacco, alcohol and morphine. . . exert a pernicious influence upon moral character. The earlier these hurtful habits are formed, the more firmly will they hold their victim in slavery to lust, and the more certainty will they lower the standard of spirituality. But this truth is reflected in current studies. Researches, among other findings, note that as coffee drinkers grow older, their coffee consumption increases. On a spiritual plane, this increase in consumption accompanies a decrease in religious involvement. <sup>30</sup>

#### The 1863 Vision

The vision of Ellen White in 1848 was limited in scope dealing with only health reform issues which were as follows: tobacco, coffee, and tea; however, the 1863 vision was very comprehensive. The challenge for Ellen White was how to assimilate, synthesize, and integrate such a volume of material into a cohesive and authentic form. The second challenge was her limited education and lack of expertise in academic matters.

In addition to the visions given in 1848 and 1863 on dietary and health reform, personal health problems within her own home, influenced her thoughts on health reform. The following account points this out:

Herbert died after living only three months, a victim of erysipelas. The 33 year old mother recalled this heart breaking experience:

<sup>&</sup>lt;sup>28</sup> Ellen White, *Ministry of Healing* (Nampa, Idaho: Pacific Publishing Press, 1942), 327, 328.

<sup>&</sup>lt;sup>29</sup> Douglas, 280.

<sup>&</sup>lt;sup>30</sup> Ibid. 327.

'My babe was a great sufferer. Twenty-four days and night we anxiously watched over him using all the remedies we could for his recovery, and earnestly presenting his case to the Lord.'31

Likewise, "The instruction concerning the establishment of a health institution by Seventh-day Adventist came at a time of crisis in the White's home." Her husband, James White, had a lot of health problems.

How did Ellen White communicate her views to the Church?

First, she communicated what was revealed to her in vision to the church. The most difficult transition for Ellen White was that of diet reform. "The Whites were not ready to take positions unless they had clearest biblical evidence or a clear word from the Lord through a vision." In response to Haskell, who in 1858 was "zealously" pushing the White's to abstain from eating swine flesh, Ellen White responded, "If it is the duty of the church to abstain from swine's flesh, God will discover it to more than two or three. He will teach His church their duty."

Meanwhile, "up to the health vision of June 6, 1863, they believed that the dietary restrictions set forth in Leviticus 11 as part of the Jewish ceremonial laws, were no longer applicable since the cross." Therefore, "During the 1850's Adventists freely ate pork.

<sup>&</sup>lt;sup>31</sup> Douglas, 57.

<sup>&</sup>lt;sup>32</sup> Jemison, 230.

<sup>&</sup>lt;sup>33</sup> Douglas, 281.

<sup>&</sup>lt;sup>34</sup> Ibid.

<sup>35</sup> Ibid.

After the June 6 vision, the issue of eating swine flesh was settled among Seventh-day Adventists."<sup>36</sup>

This issue was settled with because of Divine revelation. The record states:

Ellen White now wrote with vision certainty: God never designed the swine to be eaten under any circumstances . . . the eating of pork has produced scrofula (derived from the Latin word for breading sow, a term for tuberculosis of the lymph nodes), leprosy, and cancerous humors or lymph fluids (blood) Pork eating is still causing the most intense suffering to the human race. 37

Reluctantly granting Dr. H. S. Lay an interview, because of lack of familiarity of medical terminologies, Dores Robinson in her book, *The Story of Our Health Message* comments:

Dr. Lay was profoundly impressed by the factual accuracy of the principles of physiology, hygiene, diet, and therapeutics that lay at the foundation of what Mrs. White related as having been shown in vision. He knew that her knowledge of these principles had not been acquired from human sources of information. He frequently related these circumstances to others.<sup>38</sup>

Furthermore in support of his "confidence" of the health reform work of Ellen G. White, John Harvey Kellogg, a medical doctor, in the *General Conference Daily Bulletin*, March 8, 1897, argues:

It is impossible for any man who has not made a special study of medicine to appreciate the wonderful character of the instruction that has been received in these writings . . . There is not a single principle in relation to the healthful development of our bodies and

<sup>37</sup> Douglas. 281.

<sup>&</sup>lt;sup>36</sup> Ibid.

<sup>&</sup>lt;sup>38</sup> Robinson, 83.

minds that is advocated in these writings from Sister White, which I am not prepared to demonstrate from scientific evidence.<sup>39</sup>

Secondly, Ellen White communicated her vision through publication which reports:

During the latter part of 1863 and the first months of 1864, Mrs. White was completing the third and fourth volumes of spiritual gifts. The latter came from the press in August, 1864, and contained a thirty-two page article entitled "Health." This was the first comprehensive treatise on the subject found in any Seventh-day Adventist publication. 40

Her work "Spiritual Gift Vol. 4 was expanded until we have such volumes such as Ministry of HeUnited Theological Seminary (utscom@united.edu)aling, Counsels on Diet and Foods, Counsels on Health, Medical Ministry, and Temperance." These books were inspired by a "vision on health reform, given at Rochester, New York, December 25, 1865.<sup>42</sup>

Ellen White's moved her mode of communication from information to clarion call. In the book *A Call to Medical Evangelism and Health Education*, Ellen White writes, "I can see in the Lord's providence that all the medical missionary work is to be a great entering wedge, whereby diseased souls may be reached." "43

<sup>&</sup>lt;sup>39</sup> J. H. Kellogg, MD, *In the General Conference Bulletin* March 8, 1897, 309, 310.

<sup>&</sup>lt;sup>40</sup> Robinson, 91.

<sup>&</sup>lt;sup>41</sup> Jemison, 229.

<sup>&</sup>lt;sup>42</sup> Ibid.

<sup>&</sup>lt;sup>43</sup> "A Call to Medical Evangelism and Health Education, Selections from the Writing of Ellen G. White, Teach Service Inc. Bushton, NY: 6

Thirdly, she appeals to thousands of workers to enter the missionary work. As such, she makes a universal call:

The evangelization of the world is the work that God has given to those who go forth in His name. They are to co-laborers with Christ, revealing to those ready to perish His tender pitying love. God calls thousands to work for him. . . Do medical missionary work. Thus you will gain access to the hearts of the people. 44

Because Ellen White argues that, "The principles of health reform are found in the Work of God," She makes a profound statement, that is, that the "medical missionary work is the right hand of the Gospel." 46

Fourthly, clearly Ellen White implies that the church has a dual role to educate and to train for health service. Moreover, "The church of God is organized for service. Its watchword is ministry. Its members are soldiers to be trained. . . . They are not only to minister to the people, but to teach them to be ministers. They should not only instruct them to right principles, but educate their hearers to impart these principles."

It was important for Ellen White to clearly articulate her view of health because "early Adventists were as physically afflicted as their contemporaries. Many of them, fearful of the prevailing medical practice, turned to prayer as their best hope."

Fifthly, she communicated the personal results of prayer and faith, which were evident in some dramatic healings. There were those who were opposed to the medical

<sup>45</sup> Ibid. 7.

<sup>44</sup> Ibid.

<sup>46</sup> Ibid.

<sup>&</sup>lt;sup>47</sup> Ibid. 15.

<sup>&</sup>lt;sup>48</sup> Douglas, 279, 280.

establishment but she did not take a fanatical view about "natural remedies." She proposes:"We believe in the prayer of faith; but some have carried this matter too far. . . Some have taken the strong ground that it is wrong to use simple remedies. We have never taken that position . . . Earthly physician is very necessary."

When Mrs. White encountered detrimental health problems the record reports:

In 1854, she visited a "celebrated physician in Rochester" for a painful swelling on her eyelid that was diagnosed as cancer. But the physician told her that she would die of apoplexy before the cancer would kill her! About a month later, after much trust and prayer, she suddenly was healed of both cancerous eyelid and the oppressive heart condition that made her breathing difficult. <sup>50</sup> How did the church institute her practice?

The church instituted Mrs. White's practice through the published work. "In November, 1848, during a meeting at Dorchester, Massachusetts, Ellen White was given a vision in which there was revealed to her the duty of her brethren to begin to publish the light that had come to them." <sup>51</sup>

Consequently many articles, periodicals and books were used to spread the health message. Literature such as *Present Truth, The Second Advent Review and Sabbath*Herald, A Sketch of The Christian Experience and Views of Ellen G. White, and

Testimony for the Church became powerful expressions of the church's health message.<sup>52</sup>

<sup>50</sup> Douglas, 280.

<sup>&</sup>lt;sup>49</sup> Ibid. 280.

<sup>&</sup>lt;sup>51</sup> Jemison, 210.

 $<sup>^{52}</sup>$  Jemison, 210 - 217.

But James White, the first publisher of Seventh-day Adventist literature, could not perform at the level desired. "To lighten his load, he gave up the editorship of the *Review and Herald*, and Uriah Smith was appointed in his place."<sup>53</sup>

To take publishing to another level, the Seventh-day Adventist Church began to focus on distributing literature globally. "A vision was given Ellen White in which she was shown Seventh-day Adventist publishing houses in various countries, where at that time; the church had no publishing houses or even churches." Consequently, "a new concept was gained regarding the task of Adventist giving God's message to the entire world. At this time they had only one overseas worker, J. N. Andrews, who had been sent to Switzerland in the fall of 1874."

This gave birth to a new group of missionary workers. As such:

Impetus was lent to the colporteur circulation of Seventh-day Adventist literature by a message given by Ellen White in vision in September, 1875. She was told 'Tracts, papers, and books, as the case demands, should be circulated in all cities and villages in the land. Here is missionary work for all.'56

There was a mixture of responses to the information on health reform. On one hand, the information suggests:

Recommended reforms in diet and giving up of various harmful stimulants, such as tea, coffee, and tobacco as well as alcoholic drinks . . . The response to the instruction was slow at first, but it steadily increased. <sup>57</sup>

<sup>&</sup>lt;sup>53</sup> Ibid. 230.

<sup>&</sup>lt;sup>54</sup> Ibid. 234

<sup>55</sup> Ibid.

<sup>&</sup>lt;sup>56</sup> Ibid.

<sup>&</sup>lt;sup>57</sup> Ibid. 227.

On the other hand, the response from others stated that, "In the church paper correspondents rejoiced in the new light on health reform and testified great benefits they received as they adopted the principles." <sup>58</sup>

The church also instituted the practice of Mrs. White through developing a health care system to propagate health reform. This is "a result of another vision on health reform, given at Rochester, New York, December 25, 1865." <sup>59</sup> This gave birth to a world class health system. "The instruction resulted in the founding of a world-wide system of health institution for the purpose of giving physical and spiritual help to the sick, and instructing them in the principles of healthful living." Since then, the health care system has gone through great expansion. In *Magazine Adventist World*, the issue of September 2009, Jan Paulsen, the Leader of the Seventh-day Adventist Church reports:

We continue to place high priority on facilitating, funding, and supporting professional medical and health care through out network of more than 600 hospitals, sanitariums, clinics, and dispensaries, through nutrition and other health programs; and through our advocacy of vegetarianism and alcohol – and drug free living. 61

Moreover, Seventh-day Adventists Health Care system relied on missionaries to supply the work force. Ellen White recommended that:

Medical mission should be established in every city . . . Medical missionary work should have its representatives in every place in

<sup>&</sup>lt;sup>58</sup>Robinson, 95.

<sup>&</sup>lt;sup>59</sup> Jemison, 229.

<sup>60</sup> Ibid.

<sup>&</sup>lt;sup>61</sup> Jan Paulsen, *Adventist World: Christ's Healing in a Changing World*, (Review and Herald Hagerstown, MD: September 2009.) 8.

connection with the establishment of our churches. The relief of bodily suffering opens the way for the healing of the sin-sick soul.<sup>62</sup>

The missionaries then were asked to be self supporting. "Work with your hands that you may be self-supporting, and as you have opportunity proclaim the message of warning." 63

Education was another mode through which the church instituted the practices of Ellen White. Doris Robinson writes:

The account leads from a vision given to Ellen White in 1983 calling for radical *changes* in the personal living habits of the church members to the development of medical work which now belts the globe, the special emphasis on training centers for health education.<sup>64</sup>

The instruction given by Mrs. White was, "We must educate, educate, educate, pleasantly and intelligently. We must preach . . . health-giving influences within the reach of those who know it not." 65

She called upon the ministers to be trained and educated to be medical missionaries. She proposes:

The minister will often be called upon to act the part of physicians. He should have a training that enables him to administer the simpler remedies for the relief of suffering . . . They should be well prepared by education and practice to combat disease. <sup>66</sup>

<sup>64</sup> Robinson, 5.

<sup>&</sup>lt;sup>62</sup> Ellen G. White, *Medical Ministry* (Nampa, Idaho: Pacific Press Publishing Association, 1963), 322.

<sup>&</sup>lt;sup>63</sup> Ibid.

<sup>&</sup>lt;sup>65</sup> Ellen White, *Medical Ministry*, 262.

<sup>66</sup> Ibid.

Jemison points to the fact that, "brief attention should be given the educational work which was fostered by Ellen White's testimonies during this period." <sup>67</sup> Consequently, it led "to the dedication of Battle Creek College and the founding of Heidelberg College" <sup>68</sup> This is the parent institution of the Seventh-day Adventist education system. He adds, "her first extensive message on this subject was written in January 1872. . . It contains many of the fundamental principles later amplified in more detailed writings. . . This article, and the many that followed it, motivated the denomination to establish educational institutions to give the youth a "proper education": superior to any to found elsewhere. <sup>69</sup>

This vision of spreading the health message expanded to more than six hundred health care systems spoken about by Dr. Jan Paulsen, President/Leader of the Seventh-day Adventist Church. Today the Seventh-day Adventist Education System includes hundreds of schools, colleges and universities.

In summarizing the results of the contribution made by Ellen White in health reform, Dorothy Robinson sums it up nicely:

Seventh-day Adventists are health-minded people; that a large portion of their members are trained as physicians, nurses, or dietitians in institutions supported by them at great expense; that they maintain numerous sanitariums, treatment rooms, health food stores, and restaurants; that coverts of their faith and expected not only to abstain from the stronger stimulants and narcotics, but also to make what seems to some to be radical changes in their diet and health habits. . . Also, it will make for a better appreciation of these

<sup>&</sup>lt;sup>67</sup> Jamison, 237.

<sup>68</sup> Ibid.

<sup>&</sup>lt;sup>69</sup> Ibid.

health principles that were regarded as so important by the pioneers of the church. <sup>70</sup>

In fact, the ancestry of the church's health message made possible by Ellen White, still resonate today. To appreciate this fully, it is worth showcasing the fundamentals of the vision that sprouted into a world movement.

## **Ingredients of the 1863 Otsego Health Vision**

The core principles of this vision were:

- Those who do not control their appetite in eating are guilty of intemperance.
- Swine flesh is not to be eaten under any circumstance.
- Tobacco in any form is a slow poison.
- Strict cleanliness of home premises is important.
- Tea, coffee, similar to tobacco, are slow poisons.
- Eating between meals injures the stomach and digestive process.
- Adequate time must be allowed between meals, giving the stomach time to rest.
- If a third meal is taken, it should be light and several hours before bedtime.
- People used to meat, gravies and pastries do not immediately relish a plain diet.
- Gluttonous appetite contributes to indulgence and corrupt passions.
- Turning to plain nutritious diet may overcome the physical damage caused by wrong diet.
- Children eating flesh meat and spicy foods have strong tendencies towards sexual indulgences.
- Poisonous drugs used as medical prescriptions kill more people than all other causes of death combined.
- Pure water should be used freely in maintaining health and curing illnesses.
- Nature has curative powers
- Common medicines, such as strychnine, opium, caramel, mercury, and quinine are poisons.
- Parents transmit their weaknesses to their children; parental influences are enormous.
- Obeying the laws of health will prevent many illnesses.
- God is not being blamed for deaths caused by violation of nature's laws.
- Light and pure air required, especially in sleeping quarters.
- Bathing, even a sponge, will be beneficial on rising in the morning.

<sup>&</sup>lt;sup>70</sup> Robinson, 7.

- God will not work healing miracles for those who continually violate the laws of health.
- Many invalids have no physical cause for their illness; they have a diseased imagination
- Cheerful, physical labor will help to create a healthy, cheerful disposition.
- Willpower has much to do with resisting disease and soothing nerves.
- Outdoor exercise is very important to health of body and mind.
- Overwork breaks down both mind and body; routine daily rest is necessary
- Many die of disease caused by wholly eating flesh foods.
- Caring for health is a spiritual matter, reflecting a person's commitment to God.
- A healthy mind and body directly affects one's morals and one's ability to discern truth.
- All God's promises are given on condition of obedience.<sup>71</sup>

After studying the historical foundation of Seventh-day Adventist Health Reform Ministry, it is evident that counsels of Ellen White had scientific credence and universal appeal and general validation beyond the Seventh-day Adventist Church.

#### **Modern Research Confirms Health Principles**

Roger Coon, commented on Dr. Clive McCay, a professor of nutrition at Cornell's New York State College of Agriculture and Life Sciences on the health principles. Dr McCay, had an illustrious career of thirty-seven years, recognized worldwide as a pioneer and authority in nutritional theory, research, and history. He came in contact with the health work of Ellen White, through a twenty year old Seventh-day Adventist graduate student, Helen Chen. Inquiring about her church teachings on health, he requested and was given the book *Counsels on Diet and Foods*. McCay believed anything before 1900 was unscientific. Thus, he raised the following urgent question: "Where did she [Ellen White] get her information"?<sup>72</sup>

<sup>&</sup>lt;sup>71</sup> Douglas, 283, 384.

<sup>&</sup>lt;sup>72</sup> Roger Coon, E. G. White, M.D. Dialogue, Vol. III 1991, 11.

Curiosity led McCay to inquire from Francis Nichol, the editor of the *Review and Herald*, his interest about Adventist health principles presented by Ellen White. Nichol shared with him that critics perceived her as a plagiarist, who copied from her contemporaries.

#### McCay responded:

'Nonsense!' McCray responded. I simply cannot accept that explanation: It creates a much bigger problem than it resolves! If she merely copied her contemporaries, how did she know which ideas to borrow and when to reject, out of the bewilding array of theories and health teachings current in the nineteen century? Most were quite irrational and have been repudiated! She would have had to be a most amazing person, with knowledge beyond her times, in order to do this successfully.<sup>73</sup>

Roger W. Coon, in his book *A Gift of Light*, suggests that the proceeding years, Dr. McCay gave lectures to a variety of scientific bodies, on Ellen White writings in nutrition.<sup>74</sup> It appears that Ellen White's vision on health corresponds with the original diet given by God in the creation story.

## **The Original Diet**

Much emphasis has been placed on the negative effects of inappropriate dietary habits. However, the purpose of this research provides a worthy alternative in dieting. The researcher contends that there is no such thing as a perfect diet. The quality of food today has been compromised by fertilizers, hormones to speed up the natural growth process, environmental changes, genetic mutation, pharmaceutical supplements, and

<sup>&</sup>lt;sup>73</sup> Francis D. Nichol, *Why I Believe in Ellen White* (Washington, D.C.: Review and Herald Publishing Association, 1964), 57.

<sup>&</sup>lt;sup>74</sup> Roger W. Coon, *A Gift of Light* (Washington DC: Review and Herald Publishing Association, 1983), 43-51.

pseudo-dieting business. It means, therefore, that one must endeavor to find the best diet which is both available and affordable.

The first alternative that should be looked at is the original diet God gave to man.

In Genesis 1:29 God said to Adam:

I have given you every herb that yields seed which is on the face of the earth, and every tree whose fruit yield seed, to you it shall be for food. <sup>75</sup>

The original diet advocated by the Bible was the best diet admonished by Ellen White. Modern science has tested these methods and concurs with her findings:

In order to know what are the best foods, we must study God's original plan for man's diet . . . Grains, fruits, nuts, and vegetables constitute the diet chosen for us by the Creator. These foods, prepared in a simple and natural a manner as possible, are the most healthful and nourishing. They impart a strength, a power of endurance and a vigor of intellect, that are not afforded by more complex and stimulating diet. <sup>76</sup>

Douglas quotes the Adventist Health Study concerning the consumption of nuts in the diet; it has been discovered that, "men who ate nuts 4–5 times a week had only half as many of heart attacks as those who rarely ate nuts." Douglas mentions that Sabate in an article in the *New England Journal of Medicine* admitted that "walnuts and almonds have been shown to lower serum lipids (reducing the risk of arthrosclerosis)." <sup>78</sup>

<sup>&</sup>lt;sup>75</sup> Genesis 1: 29, The New King Version Bible.

<sup>&</sup>lt;sup>76</sup> Ellen White, Counsels on Diets and Food, 81.

<sup>&</sup>lt;sup>77</sup> Douglas, 324.

<sup>&</sup>lt;sup>78</sup> Ibid.

Douglas points out that the Cancer Association (CA) is presently exploring the nutrients in fruits and vegetables to see if there are any protective agents against cancer. Their findings so far have been:

Vegetables and fruits are complex foods containing more than 100 beneficial vitamins, minerals, fiber, and other substances . . . the principal possibilities include specific vitamins and minerals, fiber, phytochemical—carotenoids, flavonoids, terpenes, sterols, indoles, and phenoids—that are present in foods of plants origin . . . until more is known about specific foods components, the best advice is to eat five or more servings of fruits and vegetables each day. <sup>79</sup>

There are indications from The Adventist Health Study that vegetarians consume twice the amount of vitamin A and four times the amount of Vitamin C over people in the general population. It has been asserted that "the antioxidant vitamins A, C and E may lower the risk of cancer and coronary heart disease." Those who consume four servings of legumes weekly decreased the risk of pancreatic cancer than those who eat legumes once weekly. 80

Douglas reports that Colditz in the *American Journal of Clinical Nutrition* answer the question as to "where does one finds these antioxidants? In carrots, squash, tomatoes, leafy vegetables, dried fruits, fresh strawberries, melons, broccoli, cauliflower, brussel sprouts etc. In a study of the elderly people, high consumers of these foods, had 30 percent of the cancer mortality as that of lower consumers."

<sup>&</sup>lt;sup>79</sup> Ibid.325.

<sup>&</sup>lt;sup>80</sup> Ibid.

<sup>81</sup> Ibid.

Douglas also asserts that the *New England Journal of Medicine* in a 1987 report points out that "foods high in potassium . . . like oranges, bananas, potatoes, and milk . . . reduce risk of stroke as much as forty percent."<sup>82</sup>

Grains are also an important part of the food pyramid. Ellen White advised: "In countries where fresh fruits can be obtained . . . Grains, and vegetables into foods that will sustain life and will not bring disease." Research in recent years confirms the fact that grains are important in the diet for good colon health. According to the cancer Association,

Grain such as wheat, rice, oats, barley, and the foods made from them constitute the base of healthful diets as illustrated in the food guide pyramid. Healthful diets contain six to 11 standards servings of food from this group each day . . . grains are an important source of many vitamins and minerals such as foliate, calcium, and selenium, all of which have been associated with a lower risk of colon cancer. 84

Some of the principles recommended by Ellen White in the middle of the nineteenth century are similar recommendations advised today. Douglas writes,

U.S. Department of Agriculture and Health, Education, and Welfare. In July 1980, USDA and HEW issued jointly their Dietary guidelines for Americans: (1) eat a variety of foods, (2) maintain ideal weight: (3) avoid too much fat, saturated fat, and cholesterol: (4) eat foods with adequate starch and fiber: (5) avoid too much sugar: (6) avoid too much sodium: (7) if you drink alcohol, do so in moderation. 85

<sup>82</sup> Ibid.

<sup>83</sup> Ellen G. White, Counsel on Diets and Food, 96.

<sup>&</sup>lt;sup>84</sup> Cancer Association (CA), 1996, 328.

<sup>&</sup>lt;sup>85</sup> Douglas, 334.

The exception to the above recommendation is the latter statement concerning moderation in alcohol. Ellen taught abstinence. She said: "The only safe course is to touch not, taste not, handle not tea, coffee, tobacco, opium, and alcohol." The reason she gives for listing alcohol is that it "destroys the sensitive nerves of the brain and benumbs the sensibilities."

In an article in the *Readers Digest* in June, 1970, on "Alcohol and your Brain," Maisel confirmed that alcohol does destroy the brain cells. He comments:

Even the moderate imbiber may incur some loss of irreplaceable brain cells—every time he drinks . . . the only real difference between his loss brain tissue and that of the heavy drinker is one of degrees. <sup>88</sup>

There are times when television hosts make reference of the advantage of the French who drink red wine, and have a lower rate of coronary heart disease. However, much is not mentioned about the adverse effect of alcohol of the French people. In the book, Encyclopedia of 15,000 Illustrations, Paul Lee Tan writes:

Alcoholism kills almost 22,000 persons a year in France, the country which has more cases of cirrhosis of the liver than any other in the world. Official statistics also show that the average French man drinks 31 gallons of wine a year. 89

In 1974, the Adventist Incidence Study conducted in California, sent 63,350 questionnaires to Adventist households elaborated:

<sup>&</sup>lt;sup>86</sup> Ellen G. White, Counsel on Diets and Food, 428.

<sup>&</sup>lt;sup>87</sup> Ellen G. White, *Temperance* (Nampa, Idaho: Pacific Press Publishing Association, 1949) 59.

<sup>&</sup>lt;sup>88</sup> Albert Q. Maisel, "Alcohol and your Brain" *Readers Digest*, June 1970.

<sup>&</sup>lt;sup>89</sup> Paul L. Tan, *Encyclopedia of 15,000 Illustrations* (Dallas, TX: Bible Communication, Inc., 1998), 35.

348 variables covering demographic, socioeconomic, and religious belief and practice characteristics; family and personal medical histories; and nutritional, drug use, and exercise . . . The result continue to bear positive health benefits of the Adventist health message set forth from Ellen White a century ago. <sup>90</sup>

It is remarkable to note that, "European studies confirm these two Adventists. A Norwegian seventeen-year study covering all Adventist in the country concluded in 1981 that Norwegian Adventists enjoyed about the same benefits as California Adventists." <sup>91</sup>

An article from the *Adventist Review* December 2, 1982 makes reference to information found in the Denmark Cancer Registration Office in Copenhagen in 1982. It is remarkable "after a thirty-five year study, only one in ten Adventists developed cancer" compared with "the Danish population one in four" developed cancers during the same time period. The Danish Chief Medical Officer commented: "Without a doubt, the Adventist studied in the investigation sustained far less risk of developing cancer than the average person. Their risk was 70 to 80 percent less than that of the general population."

A Dutch study was conducted showing the "life expectancy" of a Seventh-day Adventist was much greater than the general population. Berkel and Waard disclosed: In the Dutch study held in 1983 that there was, "an 8.9 years life expectancy advantage for Adventist men and 3.7 years advantage for Adventist women."

<sup>&</sup>lt;sup>90</sup> Douglas, 336.

<sup>&</sup>lt;sup>91</sup> Ibid.

<sup>&</sup>lt;sup>92</sup> Adventist Review, December, 1982.

<sup>&</sup>lt;sup>93</sup> J. Berkel and F. de Waard, "Mortality Pattern and Life Expectancy of Seventh-day Adventists in the Netherlands," *International Journal of Epidemiology 12*: (1983), 455—459.

In summary, Dores Robinson makes the relationship between the church's growth and the advent of the health message made possible through the vision of Ellen White and its application by the church, when she writes:

The story of our health message takes us back to a time . . . How God led His people to an understanding of the laws of nature . . . The account leads from a vision given to Ellen White in 1863 calling for radical changes in the personal living habits of the church members to the development of a medical work which now belts the globe, with special emphasis on training centers for health education. <sup>94</sup>

#### Robinson states further that,

"Seventh-day Adventists are health minded people; that a large proportion of their members are trained as physicians, nurses, or dieticians in institutions supported by them at great expense; that they maintain numerous sanitariums, treatment rooms, health food stores, and restaurants that converts to their faith are expected not only to abstain from stronger stimulants and narcotics, but also to make radical changes in their diet and other health habits."

The data on health reform, given by Ellen White, suggests the success growth rate of the church as the church developed a world class health system and various educational institutions to facilitate Ellen White's vision. The researcher concludes, that given Ellen White's limited educational background, and the validity of her health vision both by the church and the wider scientific community, she was divinely inspired. Clearly the church and world have benefitted immensely from Ellen White visions. But long before health care reform became an important public health priority, Mrs. White's provocative reflections disclosed that caring for our bodies demands a

<sup>&</sup>lt;sup>94</sup>Robinson, 5.

<sup>95</sup> Ibid.

holistic commitment to wellness practices. Her view was seen as part of a mature understanding of Old Testament and New Testament-theological disciplines.

Against this backdrop, I anticipate that the findings will reveal implicitly the legacy of health care reform that is foundational to Seventh-day Adventist religious values.

#### **Biblical Foundation**

## **Old Testament Scripture**

#### **Leviticus 11: 1–14; 44, 45 (King James Version)**

<sup>1</sup>And the LORD spake unto Moses and to Aaron, saying unto them, <sup>2</sup>Speak unto the children of Israel, saying, These are the beasts which ye shall eat among all the beasts that are on the earth. <sup>3</sup>Whatsoever parteth the hoof, and is clovenfooted, and cheweth the cud, among the beasts, that shall ye eat. <sup>4</sup>Nevertheless these shall ye not eat of them that chew the cud, or of them that divide the hoof: as the camel, because he cheweth the cud, but divideth not the hoof; he is unclean unto you. <sup>5</sup>And the coney, because he cheweth the cud, but divideth not the hoof; he is unclean unto you. <sup>6</sup>And the hare, because he cheweth the cud, but divideth not the hoof; he is unclean unto you. <sup>7</sup>And the swine, though he divide the hoof, and be clovenfooted, yet he cheweth not the cud; he is unclean to you. <sup>8</sup>Of their flesh shall ye not eat, and their carcase shall ve not touch; they are unclean to you. <sup>9</sup>These shall ye eat of all that are in the waters: whatsoever hath fins and scales in the waters, in the seas, and in the rivers, them shall ye eat. <sup>10</sup>And all that have not fins and scales in the seas, and in the rivers, of all that move in the waters, and of any living thing which is in the waters, they shall be an abomination unto you: <sup>11</sup>They shall be even an abomination unto you; ye shall not eat of their flesh, but ye shall have their carcases in abomination. <sup>12</sup>Whatsoever hath no fins nor scales in the waters, that shall be an abomination unto vou. <sup>13</sup>And these are they which ye shall have in abomination among the fowls; they shall not be eaten, they are an abomination: the eagle, and the ossifrage, and the ospray, <sup>14</sup>And the vulture, and the kite after his kind;

<sup>44</sup>For I am the LORD your God: ye shall therefore sanctify yourselves, and ye shall be holy; for I am holy: neither shall ye defile yourselves with any manner of creeping thing that creepeth upon the earth. <sup>45</sup>For I am the LORD that bringeth you up out of the land of Egypt, to be your God: ye shall therefore be holy, for I am holy.

# **Historical Setting of The Levitical System**

According to the *Life Application Study Bible*, Leviticus is "a handbook for the priest outlining their duties in worship, and a guidebook of holy living for the Hebrews.<sup>96</sup> The author is Moses. Dated between 1445 – 1444 B.C. The historical "setting is at the foot of Mount Sinai. God is teaching the Israelites how to live as holy people." Here God sets Himself up as the standard of holiness in Leviticus 11: 44. "For I am the Lord your God. You shall therefore consecrate yourselves, and you shall be holy; for I am holy."

The central theme in the book of Leviticus is "holiness" which "is mentioned more times (152) than any other book of the Bible." <sup>99</sup> Understanding the serious responsibilities of the priesthood, God did not leave the selection to human. "God appeared to Moses, and enjoined him to bestow the high priesthood upon Aaron his brother, as upon him that best of them all deserved to obtain that honor, on account of his virtue . . ." <sup>100</sup> knowing him to be the most righteous person among you. So that he is to put on the vestments which are consecrated to God, he is to have the care of the altars, and to make provisions for sacrifices; and he it is that must put up prayers for you to God. <sup>101</sup>

<sup>&</sup>lt;sup>96</sup> Life Application Study Bible, Leviticus NIV, 204.

<sup>&</sup>lt;sup>97</sup>Ibid

<sup>&</sup>lt;sup>98</sup> Leviticus 11:44, New King James Version Bible.

<sup>99</sup> Ibid.

<sup>&</sup>lt;sup>100</sup> The Works of Josephus: Complete and Unabridged. New Updated Edition, Translated by William Whiston, (Peabody, MA: Hendrickson Publishers, Inc., 1998), 91.

<sup>101</sup> Ibid.

In the book *Ancient Israel*, Ronald de Vaux states:

The 'Law" come from God, but he entrusted it to the priests (Dt 31: 9, 26). According to Dt 33:10, the priest are to teach the tôrôth of Yahweh to Israel (cf. 0s 4:6) and the priest as a Teacher is a 'messenger of Yahweh Sabaoth') Ml 2:7). The torah was originally a short instruction on a particular topic, a rule of practical conduct, more especially about how to perform cultic worship, in which the priest is a specialist; he had to decide what was sacred and what was profane, what was clean and unclean, and to instruct the faithful on the point of (LV.10-11; Ez 22: 26; 44: 23).

Leviticus 11 will be the central focus of this research. The book of Leviticus is divided into five sections. The first section, chapters one to seven, describes the sacrifices. The second section, chapters eight to ten, describes the consecration of the priests. The third section, chapters eleven to fifteen, describes the ceremonial codes of purity. The fourth section, chapter sixteen, deals with the atonement. The fifth section, chapters seventeen to twenty-six deals with the Holiness of God; and chapter twenty seven deals with vows. <sup>103</sup>

The five sections of Leviticus are major themes that were relevant for the nation of Israel to maintain a proper a proper relationship with their God.

The first theme was sacrifice and offering:

There are five kinds of offerings that fulfill two main purposes: one to show praise, thankfulness and devotion; the other for atonement, the covering and removal of guilt and sin. Animal offerings demonstrated that the person was giving his or her life to God by means of the life of the animal. <sup>104</sup>

<sup>&</sup>lt;sup>102</sup> Ronald de Vaux, *Ancient Israel: Its Life and Illustrations*, Translated by John McHugh, (New York: McGraw-Hill Book Company, Inc., 1961) 354.

<sup>&</sup>lt;sup>103</sup>Nathaniel Michlem, The *Interpreter's Bible*, (Nashville, TN: Abingdon Press, 1953), 3-14.

<sup>&</sup>lt;sup>104</sup> Life Application Study Bible, NIV 206.

There were five offerings that the Israelites sacrificed to God. The purpose of these offerings were for forgiving sins forgiven, restoring fellowship with God, and symbolically, counting on the death of Christ to grant them full forgiveness. <sup>105</sup>

The burnt offering was a voluntary offering to make payment for sins in general. It showed personal devotion to God, and relied on Christ's death as the perfect sacrifice. The grain offering was also voluntary and showed honor and respect to God in worship. It acknowledged that they belong to God; and that Christ was the perfect man who gave of himself to God and man. The fellowship offering was also voluntary to show gratefulness to God, symbolic of peace and fellowship with God, with Christ as the only way to fellowship with God. The sin offering was required to make payment for unintentional sins of uncleanness, neglect or thoughtlessness. Christ the only way to restore fellowship with God. Finally the guilt offering which required to make payment for sins against God and others. The sacrifice was made to God; whereas, the injured person was repaid or compensated for the wrong done against them. Ultimately, Christ's death takes away the destructive consequences for sin. <sup>106</sup>

The second major theme dealt with worship:

Seven feasts were designated religious and national holidays. They were often celebrated in family settings. These events teach us much about worshiping God in both celebration and dedication. <sup>107</sup>

<sup>&</sup>lt;sup>105</sup> Ibid.

<sup>106</sup> Ibid.

<sup>107</sup> Ibid.

The third major theme dealt with health:

Civil rules for handling food, disease, and sex were taught. In these physical principles, many spiritual principles were suggested. Israel was to be different from the surrounding nations. God was preserving Israel from disease and community health problems. <sup>108</sup>

The fourth major theme dealt with holiness:

Holy means "separated" or devoted." God removed his people from Egypt; now he was removing Egypt from the people. He was showing them how to exchange Egyptian ways of living and thinking for his ways. <sup>109</sup>

The fifth major theme was the Levites:

The Levites and priest instructed the people in their worship. They were the ministers of their day. They also regulated the moral, civil, and ceremonial laws and supervised the health, justice, and welfare of the nation. <sup>110</sup>

## **Dietary Laws in Leviticus**

The biblical focus of this research is on the dietary laws in Leviticus. Thus

Leviticus chapter eleven provides dietary instructions given by God to preserve a holy
nation, separated from the pagan nations surrounding them.

In Leviticus Chapter eleven, divine instructions were given by God about a clear distinction between clean and unclean animals. What was edible and what was inedible.

Gerhard F. Hasel, a professor of theology at the Seventh-day Adventist Theological

<sup>&</sup>lt;sup>108</sup> Ibid.

<sup>&</sup>lt;sup>109</sup> Ibid.

<sup>&</sup>lt;sup>110</sup> Ibid. 207.

Seminary at Andrews University raises the question, "The distinction between clean and unclean animals in Leviticus 11... Is it still relevant?" <sup>111</sup>

The majority of Christians and even certain group of Jews no longer observe these distinctions in their dietary habits. It is claimed by some that the adherence to Biblical dietary instructions is an inconsistency on the part of observing Christians, being based—so it is alleged—on ceremonial, a law fulfilled in Christ not binding for Christians. 112

On the other hand, there are those who believe that the matter of clean and unclean meats is still morally binding today. E. Farmage in his article, *The Biblical Dietary and Concept of Holiness*, argues that the Dietary laws of Leviticus 11: 2—23, 41—45 and Deuteronomy 14: 3—30, belongs to the category of "moral imperatives."

The debate concerning clean and unclean meats has been a controversial issue throughout the Christian church. Though the majority has taken one position on the matter, there has never been an unanimous consensus. In reference to this debate, Hasel writes:

The majority of modern commentators and exegetes interpret the clean and unclean distinction to be a realistic, cultic, and ceremonial in nature. That is to say, clean and unclean animal distinction is part of the Israelite cult and belongs to the so-called ceremonial law. This interpretation has had the primary, but not exclusive, support in the Christian church over the centuries. 114

<sup>&</sup>lt;sup>111</sup>Gehard F. Hasel, *Journal of the Adventist Theological Society*, February 2, (1991), 91.

<sup>&</sup>lt;sup>112</sup> Ibid. 91.

<sup>&</sup>lt;sup>113</sup> E. Farmage, *The Biblical Dietary Laws and Concept of Holiness*, Studies in the Pentateuch, ed. J.A. Emerton (London: E. J. Brill, 1990), 184.

<sup>&</sup>lt;sup>114</sup> Hasel, 92, 93,

Hasel paraphrases, Dorothea Wendenberg as stating: "In the early Christian centuries the subject of clean and unclean animals was given attention within the larger context of the laws of cleanliness." Contrary to the prior position held, "The Eastern Church generally has given support to the laws of uncleanness for centuries." With the diversity of theories on this matter, "This historical fact reveals that it is not as easy to assign a given instruction in the Pentateuch to ceremonial law as some suggest and assure the issue is resolved." 17

During the second half of the Nineteenth Century, there were major controversies concerning the interpretation of clean and unclean meat. In 1858, S. N. Haskell from New England advocated that the use of pork be eliminated from the diet and made it a test of loyalty to the Bible. Mrs. White responded in writing saying "if it is the duty of the church to abstain from swine's flesh, God will discover it to more than two or three.<sup>118</sup>

D. M. Canright in 1866 commenting on Deuteronomy 14:8 suggested, "And the swine, because it divideth the hoof, yet cheweth not the cud, it is unclean unto you: ye shall not eat of their flesh, not touch their dead carcass." Canright pointed specifically to swine flesh, but did not mention any other unclean meat.<sup>119</sup> One year later in an article,

<sup>116</sup> Ibid.

<sup>115</sup> Ibid,

<sup>117</sup> Ibid.

<sup>&</sup>lt;sup>118</sup> Ellen G. White, *Testimonies for the Church, Vol. 1*(Mountain View, CA: 1948) 207

<sup>&</sup>lt;sup>119</sup> D. M. Canright, *The Bible on Meat: Health Reformer, Vol. 1.* (December 1866), 66.

he mentions oysters and asserted it had powers to excite "certain kinds of feelings" but does not argue from a Biblical perspective. 120

W. C. Gage in 1870 refuted scriptural evidence of the swine being unclean documented in a contemporary periodical. He does not use Deuteronomy 14 or Leviticus 11 to dispute his opposition; it is based on rationale. He reasoned, "If the scripture failed to settle the question, let reason have sway. Examine the animal, and see its filthy habits." <sup>121</sup>

A report of a question and answer column in 1883 conducted by W. H. Littlejohn, shows that he expressed apprehension as to whether or not oysters would fit the prohibition of clean and unclean meat found in Leviticus 11. He claimed if there were a prohibition, it would be based on some natural phenomenon. <sup>122</sup> In 1857, Russell Trall in Hydropathic Cook Book, addresses the reason why flesh foods were harmful. He argued that all mallusca including oyster, were "bad ailments" Dr. James C. Jackson, a renowned medical doctor and health reformer was very critical of flesh foods. He objected to the use of oyster because it was a scavenger. <sup>124</sup>

Thus, the issue of clean and unclean meat for human consumption is still unresolved among a minority of Christian groups. The key to understanding the context in the distinction between clean and unclean meat for the purpose of diet is having a clear

<sup>&</sup>lt;sup>120</sup> D. M. Canright, Why I Do Not Eat Swine, Health Reformer, Vol. 1, (April 1867) 135.

<sup>&</sup>lt;sup>121</sup> W. C. Gage, Pork Unclean, Health Reform, Vol. 4, (1870), 150.

<sup>&</sup>lt;sup>122</sup> W. H. Littleiohn, Oysters, (Review and Herald, Vol. 60 (August 14, 1883), 522.

<sup>123</sup> Russell Trall, The New Hydropathic Cook Book (New York, 1857), 104

<sup>&</sup>lt;sup>124</sup> James C. Jackson, *Flesh a Food in James White*, Ed. *Health Reformer: On How to Live* (Battle Creek, MI: 1868), 131—136.

knowledge of the two distinctions of uncleanness. First there is a permanent uncleanness that is non-ritual, non-cultic, non-ceremonial in nature and purpose and cannot be removed. The second kind of uncleanness is ceremonial and ritual in nature and needs a cultic action to remove it.

The Jerome Biblical Commentary in addressing the issue of legal purity says:

The third major division of Leviticus is concerned with various ways in which a state of uncleanness could arise and the means of gaining a state of purity. The purity code treats of four major categories: clean and unclean animals (11: 1-47) childbirth (12:1-8), leprosy (13:1-14:57), and sexual uncleanness (15: 1-33). Each except the second has its own conclusion. <sup>125</sup>

To analyze these conclusions, Hasel suggested:

First, it has to be concluded on the basis of the entire biblical witness that there is a general cleanness that is innate to all humans and things, and most animals. Under certain circumstances that which is inherently clean can acquired uncleanness—it can become unclean. . . . This acquired uncleanness is cultic or ceremonial in nature in the sense that it attached itself to what previously was clean, making that which was clean unclean. <sup>126</sup>

To remove the uncleanness, a cultic ritual was prescribed, Hasel points out

In the case of leprosy there was an elaborate cleansing ritual which included washing and/or bathing and sacrifices (Lev. 14: 1-32). In case of the acquired uncleanness which came through touching of a carcass there was washing of clothes and waiting until evening (Lev. 11: 24-28, 38, 39). The uncleanness acquired through the touching of a corpse lasted for seven days (Num. 19: 11) . . . <sup>127</sup>

<sup>&</sup>lt;sup>125</sup> Raymond Brown and James A Fitzmyer, Ed., *The Jerome Biblical Commentary*, (Englewood, NJ: (Prentice Hall, 1968) 74.

<sup>&</sup>lt;sup>126</sup> Hasel, 94.

<sup>127</sup> Ibid.

To shed more light on ritual cleansing, Hasel adds: "This kind of acquired uncleanness is ritual and cultic in nature and it is part of what is designated ceremonial law. It demands a ritual ceremony for removal, and the divine instruction is part of the ceremonial law with its rituals of cultic purpose and design."

Hasel further argues that no process changes an innate inherent unclean animal to make it clean. He states:

The innate, inherent, or designated uncleanness is an uncleanness which can never be removed by any ritual or cultic activity specified in ceremonial law. It is never removed by time, or a combination of cultic activity and time as in the case of the ritual/cultic uncleanness that has become attached to something that was originally clean. . . . There is no possibility to remove innate and non acquired uncleanness by cooking, boiling, washing, sacrifice, lapse of time or anything else. 129

Leviticus 11 outlines the divine instruction God had given to Moses to instruct the children of Israel of what their dietary pattern should be among the creatures on earth. Categories of animals that are edible and that inedible are prohibited from the human diet. Interestingly, God correlated diet with holiness. In Leviticus 11: 44 God says: "I am the Lord your God. You shall therefore consecrate yourselves, and you shall be holy; for I am holy. Neither shall you defile yourselves with any creeping thing that creeps on the earth." A summary of Leviticus 11 was about "clean and unclean animals (11:1-47);

<sup>128</sup>Ibid.

<sup>&</sup>lt;sup>129</sup>Ibid. 95.

<sup>&</sup>lt;sup>130</sup> Leviticus 11: 45, King James Version Bible.

the list is concerned with land animals (1-8), sea life (9-2), winged creatures (13-23), and small animals (29-38)."<sup>131</sup>

Jerome further continues his discussion of Leviticus 11

The dietary regulations legislation is directed to both Moses and Aaron, the latter now enjoying prestige after his ordination. With regard to the larger animals (1-8), the law is first stated positively: only animals that were split-hoofed and chew their cur could be eaten. . . Only aquatic animals having both fins and scales could be eaten (9-12). Unlike in the preceding classification, there is no general norm governing the prohibition of birds in vs. 13-19, only enumeration of the unclean species. . . The section on insects (20-23 begins and concludes with an unqualified rejection of all winged quadrupeds (the "other" of vs. 23 is not present in the Hebrew.) The interpolation in vs. 21-22 was introduced as an exception in favor of certain members of the grasshopper family. . . The brief excursus on the uncleanness through contact in 24-28 is abruptly inserted and only indirectly connected to the main theme . . . contact with any of these lifeless forms resulted in uncleanness for an entire day. . . If one picked up the corpse or any part thereof, his clothing became unclean through contact and was to be washed . . . <sup>132</sup>

Jerome concludes his discussion with this poignant statement:

To remove impurity, pottery and earthen utensils were destroyed . . . Another popular dietary classification resumes the discussion of reptiles vs. 41-45, going beyond the species of vs. 29-30 in its all embracing character. This abhorrence of reptiles, no doubt, derived at least partially from the Hebrew attitude toward the snake (Gen. 3:14) and the cultic role it played in pagan fertility rites. Motivation for avoidance of such creatures is strongly positive: The holiness of Yahweh himself demands it. 133

<sup>&</sup>lt;sup>131</sup> The Jerome Biblical Commentary, 74.

 $<sup>^{132}</sup>$  Ibid. 74 - 75.

<sup>&</sup>lt;sup>133</sup> Ibid. 75.

# **Rationale for Dietary Laws**

It is important to explore the reasons why God gave Israel his chosen people divine instructions about their peculiar dietary habits. In the *Life Application Bible* the following statement is found:

The designations clean and unclean were used to define the kind of animals the Israelites could and could not eat. There were several reasons for this restricted diet: (1) To ensure the health of the nation foods were unusually scavenging animals that fed on dead animals; thus disease could be transmitted through them. (2) To visibly distinguish Israel from other nations. The pig, for example, was a common sacrifice of pagan religion. (3) To avoid objectionable associations. The creatures that moved about the ground, for example, were reminiscent of serpents, which often symbolized sin. 134

Holiness was another reason for the distinction in diet. It has been noted: "God wanted his people to be holy (set apart, different, unique), just as He is holy." <sup>135</sup>

The concept of totemism was developed by Robertson Smith. He believes that the clean/unclean animal is the remnant of totemism. <sup>136</sup> M. H. Pope alleged, "The sacred character of the totem excludes the species as common food, but the totem animal is a victim of the ritual meal of the clan." This concept has been discarded because of lack of biblical evidence.

<sup>&</sup>lt;sup>134</sup> Life Application Study Bible, NIV 185.

<sup>&</sup>lt;sup>135</sup> Ibid. 184.

 $<sup>^{136}</sup>$  W. Robertson Smith, *Lecture on the Religion of the Semites* (Edinburgh: T & T Clark, 1889), 143.

<sup>&</sup>lt;sup>137</sup> M. H. Pope, *Totemism, Interpreter's Bible Dictionary* (Nashville,TN: Abingdon Press, 1962) IV: 674.

The most common and oldest argument used for the biblical rationale for dietary laws is the argument of hygiene/health. James Freeman in his book, *The New Manners and Customs of the Bible* asserts:

"Like many of God's laws to the Israelites, this law was not given for spiritual reasons but for health reasons. Animals found dead most likely died from disease that might possibly affect anyone eating the animal, even if it's cooked . . . The same basic reason applies to a dead animal that had been torn by wild animals. What diseases the wild animal had and passed on to the meat of the dead animal cannot be known. Rabies is transmitted by a bite of an affected animal, and so it might be possible to transfer the disease even through a dead animal that had been torn by a rabies infected wolf or wild dog." <sup>138</sup>

# **Connection of Dietary Laws Between Leviticus 11 and Genesis**

The earliest biblical account of clean and unclean animals was not found in Deuteronomy 14 or Leviticus 11. It was found in Genesis 7: 2 – 8. Divine imperative was given to Noah by God. God instructed Noah to make the clean animals enter the ark by sevens with a male and female, and the unclean by twos with a male and female. The purpose was obvious, the preservation of the species. However, it is important to note this instruction was not to a limited Israel cult. This decision was universal in its scope.

The mention of clean and unclean animals was in Genesis 8:20 where Noah took of every clean animal and every clean bird and offered them as a burnt offering. Hasel in his article asserted, it did not matter what was the purpose of the sacrifice; it was significant to note that Noah's sacrifice was of "every clean animal and every clean bird." <sup>139</sup>

<sup>&</sup>lt;sup>138</sup> James M. Freeman, *The New Manners Customs of the Bible*, (North Brunswick, NJ: Bridge-Logos Publishers, 1998), 158.

<sup>&</sup>lt;sup>139</sup> Hasel, 105.

In the early history of the world, God gave the mandate to Noah to eat the clean animal flesh, makes it clear that this distinction predated Israel's history (Genesis 9: 3-5).

Indeed it is a distinction known in the antediluvian world, taking us back into pre-flood times, in a passage and context of that his universal emphasis. It can therefore be maintained that the distinction of clean/unclean animal is applicable to humankind in general. It is limited in scope and design and outside the ceremonial legislation provided to ancient Israel in later times. 140

The fact that these dietary laws existed before Moses, suggests that these were already existing universal principles that reinstated to in the context of Israel.

Additional, instruction was given to Noah that even among the clean animals they ate that they were not to eat the blood of the animal. In Genesis 9:4 we see this account: "Man shall not eat flesh with blood in it." Thus, the blood of animals was drained before they were eaten. Besides the Old Testament, the New Testament supports that notion that Jesus' sense of his messiah-ship was in accordance with his conviction that specific dietary content was in keeping with the call to live a spiritual lifestyle.

# **New Testament Scripture**

After these things Jesus went over the sea of Galilee, which is [the sea] of Tiberias. And a great multitude followed him, because they saw his miracles which he did on them that were diseased. And Jesus went up into a mountain, and there he sat with his disciples. And the passover, a feast of the Jews, was nigh. When Jesus then lifted up [his] eyes, and saw a great company come unto him, he saith unto Philip, Whence shall we buy bread, that these may eat? And this he said to prove him: for he himself knew what he would do. Philip answered him, Two hundred pennyworth of bread is not sufficient for them, that every one of them may take a little. One of his disciples, Andrew, Simon Peter's brother, saith unto him, There is a lad here, which hath five

<sup>&</sup>lt;sup>140</sup> Hasel, 106.

<sup>&</sup>lt;sup>141</sup> Genesis 9:4, New King James Version Bible.

barley loaves, and two small fishes: but what are they among so many? <sup>10</sup>And Jesus said, Make the men sit down. Now there was much grass in the place. So the men sat down, in number about five thousand. <sup>11</sup>And Jesus took the loaves; and when he had given thanks, he distributed to the disciples, and the disciples to them that were set down; and likewise of the fishes as much as they would. <sup>12</sup>When they were filled, he said unto his disciples, Gather up the fragments that remain, that nothing be lost. <sup>13</sup>Therefore they gathered [them] together, and filled twelve baskets with the fragments of the five barley loaves, which remained over and above unto them that had eaten. <sup>14</sup>Then those men, when they had seen the miracle that Jesus did, said, This is of a truth that prophet that should come into the world. <sup>142</sup>– John 6: 1 – 14.

The feeding of the five thousand is viewed as a messianic meal. There are divergent scholastic views on this subject. The first view was that it was sacramental in nature. The second view was a sign that authenticates John as an eye witness. This researcher does not subscribe to these two views; however, the he agrees with the following views. Third view, Jesus gives nourishment to the hungry. Fourth, the meal that Jesus offered was satisfying. Fifth, the meal was sufficient because they were filled. And Finally, God's providence provides the sample meals of life.

According to Robert Boyd in his book *World's Bible Handbook*, The Gospel of John was written "sometime between A.D. 90 - 100, at Ephesus." <sup>143</sup> Whereas there are other sources that believe the book of John was written in either Antioch or Alexandria. Iranaeus states, "John the disciple of the Lord, who leaned on his breast, himself issued the Gospel while dwelling in Ephesus." <sup>144</sup> In addition, "He was in attendance at the

<sup>&</sup>lt;sup>142</sup> Bible. KJV.

<sup>&</sup>lt;sup>143</sup> Robert Boyd, World's Bible Handbook (Grand Rapids, MI: World Publishing, 1991) 432.

<sup>&</sup>lt;sup>144</sup> A.M. Hunter, *The Cambridge Bible Commentary on the New English Bible, The Gospel According to John* (Cambridge, MA: The University Press, 1965,)

council at Jerusalem in A.D. 49 - 50 (Acts 15: 4), and later went to Asia Minor, where he was Bishop or Pastor of seven churches, residing mostly at Ephesus."<sup>145</sup>

The authorship of the Gospel of John is ascribed to John. This claim is supported by "such early church fathers as Theophilus, Bishon and Antioch in A.D. 180, Iraneaus in A.D. 190, a pupil of Polycarp, who in turn was a disciple of John, and Clement of Alexandria in A.D. 200 ascribe this fourth Gospel account to John." <sup>146</sup>

The Adventist Bible Commentary points out a "few notable exceptions" with the book of John:

The marriage in Cana, the visit to Sychar, the healing of the nobleman's son, the feeding of 5,000, and the sermon on the bread of life –John deals exclusively, and often at considerable length, with incidents that occurred in Judea and involved leaders of the Jewish nation. In this respect his Gospel supplements the synoptic, which deal extensively with the Galilean ministry and pass over most of the incidents in Judea in relative silence. <sup>147</sup>

There are several differences between John and the other synoptic gospel writers.

The Seventh-day Adventist Commentary states:

Extensive sections of his gospel consist of . . . . controversial discourses in the temple in Jerusalem. Also, several chapters devoted to the counsel imparted to the disciples on the night of the crucifixion . . . John says nothing of such important incidents as baptism, the transfiguration, or the experience in Gethsemane. Nor does he give an instance of the cure demoniac. <sup>148</sup>

<sup>&</sup>lt;sup>145</sup> Boyd. 429.

<sup>&</sup>lt;sup>146</sup> Ibid. 432.

<sup>&</sup>lt;sup>147</sup> Seventh-day Adventist Commentary, Vol. 5(Washington, DC: Review and Herald Publishing Association, 1980), 893.

<sup>&</sup>lt;sup>148</sup> Ibid.

In addition to that, "the miracles of which he does take note are specifically presented as evidence of divine power and contribute to his announced purpose of proving Jesus is the Son of God." To add to that, "He recounts none of the synoptic parables. His aim is not so much biographical or historical as it is theological." Other features that are different from the other synoptic gospel, "whereas the synoptic writers present the messiahship of Jesus inductively, John boldly announces it in the first chapter and then sets forth the evidence . . . The key term of this Gospel is 'word,' Gr. *Logos* (Ch. 1:1) . . . presents Jesus as the incarnate expression of divine wisdom that made salvation possible."

Commenting about the purpose of the Gospel of John, Michael J. Taylor, Editor of the book *A Companion to John*, states, "John's avowed purpose in writing his gospel was that his readers might believe that Jesus is the Christ, the Son of God, and believing, have life in his name." <sup>151</sup>

Concerning the identity of Jesus, Boyd writes, "in stressing Christ's deity, John emphasized his humanity also . . . 'The word became flesh' and 'I came forth from the father, and am come into the world' (1:4; 16:28), and uses the name 'Jesus' almost to the exclusion of Christ."<sup>152</sup>

<sup>&</sup>lt;sup>149</sup> Ibid.

<sup>&</sup>lt;sup>150</sup> Ibid. 893, 894.

<sup>&</sup>lt;sup>151</sup> Michael J. Taylor S. J., *A Companion to John, Readings in Johannine Theology, John's Gospel and Epistles* (New York: Alba House 1977), 5.

<sup>&</sup>lt;sup>152</sup> Boyd, 430.

Pointing out the identity of John, his "name: John or Johanan means "grace, gift, or mercy of the Lord." About the ancestry of the author of the fourth synoptic Gospel, *The Life Application Study Bible*, John the apostle, son of Zebedee, brother of James, called a 'son of thunder . . . written after the destruction of Jerusalem in AD 70 and before John's exile of Patmos." He was accredited with writing of the Gospel, to convert new Christians and non Christians. His ministry was concentrated in the area of the Judean country side, Samaria, Galilee, Bethany and Jerusalem. His major theme was that Jesus Christ was the Son of God. "John shows us that Jesus is unique as God's special Son, yet he is fully God. Because he is fully God, Jesus is able to reveal God to us clearly and accurately." <sup>155</sup>

According to Andreas J. Köslenberger, in his book, *Encountering John*, he identifies John as the disciple Jesus loved:

The 'disciple whom Jesus loves' meets us again at the cross, where he is given charge of Jesus' mother (9: 26-27) and becomes the first hand witness of the crucifix, asserting in language closely resembling that of 21:24. . . Finally, the 'disciple of whom Jesus loved' is shown at the empty tomb in Chapter 20. All that is said about his reaction when he goes inside the tomb is that he 'saw and believed' (20:8). <sup>156</sup>

Dealing with the feeding of 5,000, there seems to be divergent views among scholars. First is the argument that feeding was sacramental in nature. Robert Kysar in his book, *The Fourth Evangelist and His Gospel*, comments on John 6: 1 – 13 writes:

<sup>&</sup>lt;sup>153</sup> Ibid. 429.

<sup>&</sup>lt;sup>154</sup> Life Application Study Bible, NIV (Grand Rapids, MI: Zonderman Publishing House, 1995), 1866.

<sup>155</sup> Ibid. 1867.

<sup>&</sup>lt;sup>156</sup> Andreas J. Köslenberger, *Encountering John: The Gospel in Historical Literary and Theological Perspective* (Grand Rapids, MI: Baker Book, 1999), 22.

As examples of the kind of argument posed in favor of the Eucharistic reading of the passages. G.H.C MacGregor holds that the *sacramental* meaning of the whole chapter 6 is clear from a number of characteristics: The Passover reference (v.4) the fact that Jesus himself distributes the food, the technical expression 'give thanks' (eucharistesas, v-11 is explicitly used, the sacredness of the bread is stressed (v-12), Jesus claims to be bread of life, and use the 'flesh'.<sup>157</sup>

A second argument was that the feeding of the five thousand was part of the

fifth sign. Köslenberger accounts:

The scene is the eastern shore of Galilee (called in 6:1 'Sea of Tiberius,' its later designation after the Roman emperor Tiberius, who ruled from A.D. 14 - 37; cf. 21:1). The time is spring . . . 'plenty of grass' in 6:10) shortly after the Jewish Passover (v.4). 158

He continues by giving this great insight. He writes:

A comparison between John's account of the feeding of the five thousand and that of the synoptics makes clear that John provides his own independent account. . . . The involvement of Philip and Andrew (vv. 7-8); the fact the five loaves contributed by the boy were loves of barley v. 9); and Jesus command his disciples to gather all the fragments so that nothing would be lost (v. 12). . . Adds to the value of John's Gospel as independent apostolic eyewitness testimony.  $^{159}$ 

Third, Dorothy A. Lee, in her book, The Symbolic Narratives of the Fourth

Gospel, The Interplay of Form and Meaning gives a new perspective on the theme of

John 6 that Jesus is a nourisher:

The theme of John 6 is that Jesus the true bread from heaven who offers life through self-giving. For believers, life is found only in 'feeding' on him. . . This motif relates both to the image of bread

<sup>&</sup>lt;sup>157</sup> Robert Kysar, *The Fourth Evangelist and His Gospel, An Examination of Contemporary Scholarship* (Minneapolis, Minnesota: Ausbury Publishing House, 1975) 252.

<sup>&</sup>lt;sup>158</sup> Andreas J. Köslenberger, *Encountering John*, 99.

<sup>&</sup>lt;sup>159</sup> Ibid.

and to the idea of feeding (sees v.5). In particular, it is derived from the portrait of wisdom and nourisher . . . like Jesus both gives and is the gift offered: The one who offers nourishment is also presented as nourishment itself.  $^{160}$ 

John Painter in his book *The Quest for the Messiah*, gives new insight about the political and socio-economic ramifications:

His analysis of Josephus led to the conclusion that the first century prophets were of two kinds: The individual oracle prophet and those who led popular prophetic movements. The latter, he thinks, rose from among the common people and were concerned with deliverance of the common people from socio-economic oppression of the day. He stresses that the association with deliverance is essential to this movement. . . Jesus was perceived by the masses as a prophet. <sup>161</sup>

Fourth, it was important to note that Jesus satisfied the dietary needs of the crowd.

Read 6: 1-15 from the perspective of the quest of the story we note that the initiative of the crowd was rewarded and they were fed. . . . The crowd's quest to make Jesus king was frustrated by his premature withdrawal . . . They sought him because he satisfies the hungry ('you ate of loaves and were satisfied'). 162

In the book *Desire of Ages*, Ellen White comments on John 6: 1-14, gives an account that Jesus and his disciples had "retired" to a quiet place to spend private time with his disciples. Some members of the crowd had "noticed the direction" they went. She suggests it was not Jesus who went to find the crowd, but she writes:

The Passover was at hand, and, from far and near, bands of pilgrims on their way to Jerusalem gathered to see Jesus. Additions

<sup>&</sup>lt;sup>160</sup> Dorothy A. Lee, *The Symbolic Narratives of the Fourth Gospel, The Interplay and Meaning* (Sheffield, England: JSOT Press, 1994), 127.

<sup>&</sup>lt;sup>161</sup> John Painter, *The Quest for the Messiah*, (Edinburgh, Scotland: T & T Clark, 1991), 222-224.

<sup>&</sup>lt;sup>162</sup> Ibid. 228, 229.

were made to their numbers, until there were assembled five thousand men besides women and children. Before Christ reached shore, a multitude was waiting for him. . . From the hillside He looked upon the moving multitude, and His heart was stirred with sympathy. <sup>163</sup>

He ministered to their spiritual needs. At the end of his discourse, the disciples recommend:

Urging that for their own sake the people should be sent away.... in the surrounding towns and villages that they might be able to buy food. But Jesus said, "Give them to eat . . ." This He said to test the faith of the disciples. <sup>164</sup>

Several authors suggest that the reason Jesus addressed Philip and Andrew in verses 7 and 8 is because they were from the region of Bethsaida and was familiar with the social and cultural context. After discussing the cost of the food, Jesus inquired if anyone had food, verse 9, a boy was identified with food.

Fifth, It is important to note that the meal was sufficient. The key word was filled:

Five Barley loaves, and two small fishes . . . Jesus directed that they were brought to Him. He bade the disciples seat the people on the grass . . . to preserve order, and that all might witness what He was about to do. When it was accomplished, Jesus took the food, "and looking up to heaven, He blessed and brake, and gave to His disciples, and the disciples to the multitude." "And they did eat and were filled. And they took twelve baskets full of the fragments, and of the fishes." <sup>165</sup>

<sup>&</sup>lt;sup>163</sup> Ellen G. White, *Desire of Ages* (Silver Spring, MD: Better Living Publication, 1990) 364, 365.

<sup>&</sup>lt;sup>164</sup> Ibid. 264-268.

<sup>&</sup>lt;sup>165</sup> Ibid.

Finally, there are lessons about God's providence in providing the simple meals of life. As suggested by Ellen White, there were lessons to be learned from Jesus' feeding the five thousand:

Christ taught them in this lesson that the natural provisions of God for man were perverted. And never did people enjoy the luxurious feast prepared for gratification of perverted taste as this people enjoyed the rest and simple food which Christ provided so far from human limitations. . . He who taught people the way to secure peace and happiness was as thoughtful of their temporal necessities as their spiritual needs. . . The miracle of the loves teaches a lesson on dependence upon God. <sup>166</sup>

Interestingly, the "barley was considered an inferior food, Philo declares that it is fit for traditional animals and unhappy circumstances. . . Small fish. Gr. Opsaria, the diminiture of poison, "prepared food," "relish," as mall dried or pickled fish. <sup>167</sup>

This text demonstrates that Jesus gave a simple meal of barley grained bread which supplied starch and roughage. And fish that supplied protein. It suggests that at the profoundest level, Jesus is concerned as much about our spiritual state of being as he is about our physical nourishment, thus linking health of body with the health of the soul. However, Seventh-day Adventists believe that their theological conviction about health, is based in the principles outlined in the Old and New Testaments.

## **Theological Foundation**

## **Seventh-day Adventist Theology**

The Seventh-day Adventist theology on health from its very inception is an ongoing evolution. It started first in the middle of the 1800's with the traditional

<sup>167</sup> Seventh-day Adventist Commentary, 961.

<sup>&</sup>lt;sup>166</sup> Ibid.

theological position of sola scriptura, where God's word became the ultimate standard for practice and doctrine. Within that era, when there was an impasse, they would continue to study and pray. When there was no clarity on the Scripture, God would give divine revelation through the prophetic vision of Ellen White.

In the twenty-first century, with the challenge of secularism and globalization,
Seventh-day Adventist Theology is still striving to find relevance of offering Christ's
healing to a changing world,. The world leader of this institution, theologian president
Jan Paulsen, offers four strands of resolution. The theology of connection, the theology of
human dignity, the theology of hope, and theology of wholeness. The theology of
wholeness (body mind and spirit) manifests itself in practical application of the acronym
NEWSTART advocated by Weimer Health Institution, an affiliate of the Seventh-day
Adventist Church.

# Sola Scriptura

In the book *Handbook of Seventh-day Adventist Theology*, Peter van Bemmelen gives an account of the historically the principle of the supreme authority of scriptures is often expressed in the Latin phrase sola scriptura, "by scripture alone." It adds:

Only in scripture has God committed to the human race in written form the supreme and authoritative revelation of Himself and His will, by which everything else is to be tested. No other holy books, sacred histories, ancient traditions, ecclesiastical pronouncement, or creedal statement may be accorded authority equal to that of the Bible. <sup>169</sup>

<sup>&</sup>lt;sup>168</sup> Peter M. van Bemmelen, *Handbook of Seventh-day Adventist Theology* (Hagerstown, MD: Review and Herald Publishing Association, 2000), 42.

<sup>169</sup> Ibid.

In addition to that, he states:

This also means that conscience, reason, and feelings, and religious or mystical experiences are subordinate to the authority of scripture. These may have a legitimate spare, but they should constantly be brought under the scrutiny of the Word of God. (Heb. 4:12). 170

The concept of sola scriptura that influenced early Seventh-day Adventist Theology came from the Reformation and Counter Reformation. It states:

Martin Luther (1483-1546) affirmed that in their sinful, corrupt condition, human beings do not and cannot know God. To meet their need, God has revealed Himself in certain special ways . . . Luther became convinced that the ultimate standard for faith and doctrine should be scripture alone sola scriptura. <sup>171</sup>

Commenting on sola scriptura, Douglas writes:

'The Bible and the Bible only' was the fundamental premise of the Protestant reformers, whether Luther in Germany, Zwingli and Calvin in Switzerland, or Farel in France.<sup>172</sup>

On the contrary there were difficulties in early Seventh-day Adventist theology with the reformers philosophical and theological limited view on sola scriptura. Also, there were perceived contradiction:

This heroic insistence on the 'Bible only' as the Christian rule of faith and practice calls for three observation: (1) The reformers had difficulty accepting the entire Bible, (2) They did not understand fully the continuance of spiritual gifts that Bible expressly teaches, and (3) They differed widely as to what the Bible meant. Clearly, the slogan was not sufficient in itself.<sup>173</sup>

<sup>171</sup> Ibid. 48.

<sup>&</sup>lt;sup>170</sup> Ibid.

<sup>&</sup>lt;sup>172</sup> Douglas, 377.

<sup>&</sup>lt;sup>173</sup> Ibid.

Addressing these differences that create the tension, the author observes: "The first observation is supported by the fact that Luther had great difficulty with the books of James, Hebrews, and Revelation. Calvin virtually discarded Revelation. Other reformers rejected the Old Testament.<sup>174</sup>

Ellen White, in dealing with "The second and third observations, for our purposes, relate particularly to Ellen White. What was her understanding of that vital protestant principal, 'The Bible and the Bible only?'" <sup>175</sup> Douglas further attempts to answer to this question by stating that:

She used the phrase often and with precision. She used it as the Reformer used it – as authority; that is, the Bible stood above and alone in contrast with papal dogmas, councils, and writings of church fathers. For her, as with the Reformers, salvation truth is found in the Bible, not in papal decrees or votes of church councils. <sup>176</sup>

In her book *Early Writings* Ellen White proposes, "I recommend to you, dear reader, the Word of God as the rule of your faith and practice. By that word we are to be judged . . . . and to correct those who err from Bible truth."

Jemison discusses the process of how early Seventh-day Adventist would develop unity in biblical truths. He gives an account from Ellen White:

I met with them, and we studied and prayed earnestly. Often we remained together until late night, and sometimes through the entire night . . . when they came to the point in their study where they said, 'we cannot do anything more . . . I would be taken off in

<sup>&</sup>lt;sup>174</sup> Ibid.

<sup>&</sup>lt;sup>175</sup> Ibid.

<sup>&</sup>lt;sup>176</sup> Ibid.

<sup>&</sup>lt;sup>177</sup> Ellen G. White, *Early Writings* (Washington, DC: Review and Herald Publishing Association, 1945), 78.

vision, and a clear explanation of the passages we had been studying would be given to me, with instructions as how we were to labor and teach effectively. 178

Again, "This study reached a climax in 1848, when a number of conferences were held and Bible truths began to be clarified and correlated. Five meetings were of particular value in unifying the process." The issue of Sola Scriptura in early Seventh-day Adventist Theology, "The Bible and Bible only!" means that every later prophet would have his or her messages judged by their faithfulness to earlier messages." 180

In summary, Douglas concludes:

"Early Adventists also knew that other Christians would claim that the ministry of Ellen White violated the protestant principle of 'Bible and the Bible Only.' But Adventists responded that it was because of their confidence in the scriptures that they accepted Ellen White's ministry as vital to them." 181

Dr. Jan Paulson, a renowned theologian and the President of the Seventh-day Adventist World Church, speaking in Switzerland July 7, 2009, on the subject, Christian healing in a changing world. He states, "The nineteenth and twentieth centuries saw the rise of the 'prophets of secularization' – sociologists and political thinkers who predicted the decline of religious faith as a force in society." He argues that religious faiths have survived their predicted demise, but the real challenge is a "post secular" age, where

<sup>&</sup>lt;sup>178</sup> Jemison. 209.

<sup>&</sup>lt;sup>179</sup> Ibid.

<sup>&</sup>lt;sup>180</sup> Douglas. 378.

<sup>&</sup>lt;sup>181</sup> Ibid.

<sup>&</sup>lt;sup>182</sup> Paulsen, 8.

"another powerful source of the Twenty-First Century, a force that is wholly a product of recent decades . . . the process of globalization." <sup>183</sup>.

Speaking about the realities of globalization Paulson states:

The process of globalization, which is re-creating humanity's social structures within a span of time that is quite simply breath taking. Globalization acts as a vast dynamic 'transportation system' that carries ideas, values, and people and deposit them anywhere and everywhere. Barriers of language, culture, and geography are no longer meaningful as they once were. No institution – public or private religious or secular – remains untouched.<sup>184</sup>

He submits that, "These two forces globalization and religion – live together, interact with each they and are often intertwined." <sup>185</sup>

Seeking solution "for the health ministries of the Seventh-day Adventist Church, surveying the changing global landscape on which it conducts its mission, these are significant issues." <sup>186</sup> He admits:

It's time to reflect in more depth on the values that should anchor us as we step onto the shifting ground of our changing world. And more than this, to ask ourselves what values we can, in turn imprint upon this terrain. What unique mark can we make? We need to ask ourselves: What does a distinctively Adventist approach to health ministry look like? What does it offer that isn't already offered by number of alternative providers?<sup>187</sup>

<sup>184</sup> Ibid.

<sup>&</sup>lt;sup>183</sup> Ibid.

<sup>&</sup>lt;sup>185</sup> Ibid.

<sup>186</sup> Ibid.

<sup>187</sup> Ibid,

It appears that in order for Seventh-day Adventist health care system to remain relevant, its Theology must go through an evolution that is consistent with its theology yet current with the world of health. Thus, Paulsen proposes "four strands of thought woven throughout Adventist heritage that are central to health ministries of our church and which, I hope will continue to guide us in the future." These theological strands are as follows: theology of connection, theology of human dignity, theology of hope, and theology of wholeness

## **Theology of Connection**

The Theology of connection is found in the biblical passage in Matthew which mentions, "For I was hungry and you gave me something to eat, I was thirst and you have me something to drink, I was a stranger and you invited me in, I needed clothes and you clothed me, I was sick and you looked after me, I was in prison and you came to visit me" (Matt. 25: 35 36, NIV)<sup>189</sup> As Seventh-day Adventist, the "model for relating to other people finds its beginning and end in Christ radically identifying with humanity." It is important to note that "we cannot express our faith – our desires to imitate Christ – in seclusion, our value and our beliefs find their true meaning only within the context of human relationships."

The question is raised,

What does it mean to live in connection with others? It means that your problems are not yours alone; they are also mine. It means

<sup>&</sup>lt;sup>188</sup> Ibid.

<sup>&</sup>lt;sup>189</sup> Bible, Matthew 25: 35, 36, NIV.

<sup>&</sup>lt;sup>190</sup> Paulsen, 9.

<sup>191</sup> Ibid.

having a sense of solidarity with humanity that makes me vulnerable, also, to its hurts and pain. Living in connection with others means seeing the large problem of society as collective human problems. . . It means being motivated by self-giving love, not the desire for financial profit or increased influence. Ultimately, living in connection with others means that 'When we see human being in distress, whether through affliction or through sin, we shall never say, this does not concern me.' 192

# **Theology of Human Dignity**

The Theology of Human Dignity is based on the text found in Genesis where it says, "Then God said, Let us make man in our image, according to Our likeness (Gen.1:26)." Commenting on *Imago Dei*, Miroslav Kis writes: "God makes clear that He created humans in his own image (Gen. 1: 26, 27.) In so doing, He granted them the unique privilege of sharing in their limited, creaturely way some of his divine attributes." <sup>194</sup>

Paulsen advocated, *Imago Dei*, "Touches the whole person, God made us in His image physically, spiritually, moral, social, emotional, and intellectual being." <sup>195</sup>

# He adds:

For Seventh-day Adventists, the immeasurable worth of every person derives from more than just this stamp of Divine given at creation. Human dignity springs not just from our origins but also from our potential and our destiny. This concept profoundly shapes the way we deal with people. In all our healing ministries, we see in each person not just 'What is', but what is possible. 196

<sup>192</sup> Ibid.

<sup>&</sup>lt;sup>193</sup> Genesis 1: 26.

<sup>&</sup>lt;sup>194</sup> Miroslav Kis, *Handbook of Seventh-day Adventist Theology* (Hagerstown, MD: Review and Herald Publishing Association, 2000), 677.

<sup>&</sup>lt;sup>195</sup> Paulsen. 9.

<sup>196</sup> Ibid.

# Theology of Hope

In the book of Revelation, the writer records," Behold, I make all things news." <sup>197</sup> It affirms,

For Seventh-day Adventists hope is a grand theme, an essential part of our spiritual "genetic blueprint." But for us, hope doesn't just point forward toward a grand epilogue of human history-the "What is to Come." Hope is the lens through which we view the past, future, and present. 198

In essence, hope is summed up in a pluralistic sense. Paulsen writes:

Our hope looks *backward* to the reality of Christ's death and resurrection and finds there its touchstone. It's a hope that looks *forward* to the moment of ultimate transformation – when all things are made new – and finds there its deal, its motivation. And it's a hope that looks *outward* to the realities as we meet them today and ask, what then can we do to start bridging in the gap between what is and what is to be?" <sup>199</sup>

Finally, he sums up hope as:

The healing minister of the Seventh-day Adventist church is primarily about awakening hope-physical and spiritual. Although physical needs are often the most apparent, they are indivisible from emotional and spiritual needs. In ministering to the body, we can never ignore the spirit; and the most basic need of the spirit is hope. <sup>200</sup>

## Theology of Wholeness

In I Thessalonians it states, "May God himself, the God of peace, sanctify you through and through. May your whole spirit, soul and body be kept blameless at the

<sup>&</sup>lt;sup>197</sup> Bible, Revelation 21:5. KJV.

<sup>&</sup>lt;sup>198</sup> Paulsen, 10.

<sup>&</sup>lt;sup>199</sup> Ibid.

<sup>&</sup>lt;sup>200</sup> Ibid.

coming of the Lord Jesus Christ"<sup>201</sup> 1 Thess. 5:23 *Life Application Study Bible*. The theology of wholeness is the primary focus of the Seventh-day Adventist theology. It promotes, "Bringing wholeness out of decay, healing out of sickness, finding peace in chaos, bringing light into the darkness – this is the task that the followers of Christ have been

Adventist, "wholeness" has another dimension. Our spirituality embraces the whole human life." <sup>203</sup> In the book, *Ministry of Healing*, Ellen White maintains, that the "relation that exists between the mind and the body is very intimate. When one is affected, the other sympathizes. The condition of the mind affects the health to a far greater degree than many realize." <sup>204</sup> Paulsen asserts "we don't live our lives in "segment" where physical health is merely a "piece" that can be separated from the totality of our existence." <sup>205</sup>

George W. Reid suggests that this reality of the unification of the human life is presented in the Bible. He contends:

As bound together in a single multifaceted unity of God. Therefore there can be no secular, fragmentary cosmology. Despite rebellion against Him by some of His creatures, the Bible knows of no

<sup>&</sup>lt;sup>201</sup> Bible, 1 Thessalonians 5:23, Life Application Study Bible

<sup>&</sup>lt;sup>202</sup> Paulsen, 10

<sup>&</sup>lt;sup>203</sup> Ibid.

<sup>&</sup>lt;sup>204</sup> Ellen G. White, *Ministry of Healing* (Nampa, Idaho: Pacific Press Association, 1942) 241.

<sup>&</sup>lt;sup>205</sup> Paulsen, 10.

element or entity apart from or not responsible to the Creator. Elements may be sacred or profane, but never secular. <sup>206</sup>

He further purports:

Within this setting, at creation humanity emerges from the hand of God as a new, distinct order, different and separate from the animals (Gen 1:26, 27, 31). For that point throughout biblical history humans both are treated as unified, fully integrated persons (Gen. 5:1, 2; Ps. 8:3-5; 139:13-17; I Cor. 6:15; 3 John 2; & 2 Peter 1:3, 4).

Discussing the unity of man's physiology, Reid continues:

Such unity is manifested in the form and function of the human body, with its intricate structure and physiological action that, when operating properly, sustains health. Such wholeness is important to both health and healing, providing a biblically oriented ground for preserving good health and a basis for restorative therapeutics. <sup>208</sup>

The assimilation and interaction of three elements outlined in I Thessalonians into

"wholeness" of Seventh-day Adventist theology Reid succinctly describes as:

A person consists of elements that include but reach beyond the physical body. Both the emotional and spiritual elements interact with the physical to produce a whole. Seeing a person in a broad sense not only is in harmony with the biblical understanding but establishes a unique Christian approach to healing, distinguished from the kind of health care limited to the physical body. <sup>209</sup>

<sup>&</sup>lt;sup>206</sup>George W. Reid, *Handbook of Seventh-day Adventist Theology* (Hagerstown MD: Review and Herald Publishing Association, 2000), 757.

<sup>&</sup>lt;sup>207</sup>Ibid.

<sup>&</sup>lt;sup>208</sup> Ibid.

<sup>&</sup>lt;sup>209</sup> Ibid.

Wholeness theology is interwoven throughout Scripture. "A person is dealt with in terms of unity, free from the body versus the soul duality," <sup>210</sup> Seventh-day Adventist theology of health is based on integrating, body, mind and spirit. The researcher intends to demonstrate the connection of the body, mind and spirit.

## **Integration of Body, Mind and Spirit**

Carlyle B. Haynes in an article in *Church Standards* quotes Susannah Wesley, mother of John Wesley, the father of the Wesleyan Holiness movement writes:

Whatever weakens your reason, impairs the tenderness of your conscience, obscures your sense of God, decreases the strength and authority of your mind and on your body – that thing is wrong, however innocent it may be in itself.<sup>211</sup>

The renowned theologian, professor and tele-evangelist, Mark Finley in his book, *Studying Together*, comments on 1 Thes. 5: 23: "Sanctification includes body, mind and emotions as well as spiritual faculties." <sup>212</sup>

In (1 Cor. 6: 19, 20) Paul writes: "Or do you not know that your body is the temple of the Holy Spirit who is in you, whom you have from God, and you are not your own? For you are bought at a price; therefore glorify God in your body, and spirit, which are God's"<sup>213</sup> The *Seventh-day Adventist Bible Commentary*, comments on 1 Cor. 6: 19, 20):

<sup>&</sup>lt;sup>210</sup> George W. Reid, *Handbook of Seventh-day Adventist Theology* (Hagerstown MD: Review and Herald Publishing Association, 2000), 757.

<sup>&</sup>lt;sup>211</sup> Carlyle B. Haynes, *Church Standards No.* 5 (Review and Herald, October 30, 1941), 7.

<sup>&</sup>lt;sup>212</sup> Mark Finley, *Studying Together*: A *Ready-reference Bible Handbook*, (Fallbrook, CA: Hart Research Center, 1991) 41.

<sup>&</sup>lt;sup>213</sup> Bible, New King James Version.

Since the bodies of the believers are sacred shrines of the Holy Spirit, they must not be polluted by vice. Because they are members of Christ . . . . And temples of the Holy Spirit which is given to us by God . . . . Every sin that is committed against our bodies is sin against our maker and against the Holy Spirit . . . . . Christ followers will not permit bodily appetites and desires to control them. <sup>214</sup>

To further substantiate the fact that there is a correlation between body and mind, Douglas quotes Dr. Solomon as saying:

The mind and the body cannot be separated. The mind is the brain, and the brain is part of the body. The brain regulates and influences many psychological functions, including immunity. Mental and physical well-being are inextricably intertwined. <sup>215</sup>

# **Diet and Physical Health**

The practical application of the Seventh-day Adventist Theology of health is found in the acronym NEW START, meaning nutrition, exercise, water, sunlight, temperance, air, rest and trust in Divine providence. NEW START was popularized by Weimer Health Institution. The researcher will use diet as a synonym for nutrition. According to Herbert Douglas in his book *Messenger of the Lord*, what we eat affects us in three aspects of our lives. He specifically talks about how meat in our diet affects us. He states, "The practice of meat eating is detrimental to physical, mental, and spiritual health." <sup>216</sup>

<sup>&</sup>lt;sup>214</sup> Seventh-day Adventist Bible Commentary, Vol. 6 (Washington, D.C.: Review and Herald Publishing Association, 1980), 703.

<sup>&</sup>lt;sup>215</sup> Douglas 331.

<sup>&</sup>lt;sup>216</sup> Herbert Douglas, *Messenger of the Lord, The Prophetic Ministry of Ellen G. White* (Nampa, ID: Pacific Press Publishing Association, 1998) 322.

In a statement written by Ellen White in 1866, she states when we eat meat ,"The liability to take disease increases tenfold."<sup>217</sup> She also mentions in an earlier statement in 1864 that, "some animals that are brought to the slaughter seem to realize by instinct what is to take place. They become furious, and literally mad. They are killed while in that state, their flesh is prepared for the market, their meat poison and has produced, in those who eat it cramps, convulsions apoplexy and sudden death."<sup>218</sup>

In the American Journal of Clinical Nutrition of 1978, R. L. Phillip and F. R. Lemons show that there is a clear correlation between meat eating and obesity. "The Adventist morality study indicates that 16 percent of vegetarian women and 8 percent of vegetarian men were obese whereas in a non-vegetarian Adventist group, who had 32 percent of the women and 20 percent of the men were obese. Also, "because meat is high in fat, it contains many calories in small spaces and is thus a high-caloric-density food."

# Meat, Obesity, and Cancer

Douglas discusses a study done by T. Hirayama in *the Journal of Preventive*Medicine, "conducted in Hiroshima Japan breast cancer was 3.8 times greater in people consuming meat daily compared to vegetarians. Daily users of eggs had 2.8 times greater

<sup>&</sup>lt;sup>217</sup> Ellen G. White, *Counsels on Diet and Food* (Review and Herald Publishing Association, 2007) 386.

<sup>&</sup>lt;sup>218</sup> Ibid.

<sup>&</sup>lt;sup>219</sup> Douglas, 322.

<sup>&</sup>lt;sup>220</sup> Ibid.

risk, and butter and cheese users 2-3 times greater risk than non consumers of these items."<sup>221</sup>

The instruction given by Ellen G. White over a century ago concerning cancer and eating flesh seemed farfetched, Douglas writes,

"The theory of germs was unheard of. Physicians were still using opium, calomel, mercury, arsenic, and strychnine to 'heal' disease.... people generally saw no connection between their life-style and disease.... The concept of cancer germs was a thought that was cross-grain with the medical world." <sup>222</sup>

Now the scientific world is embracing what people over a century ago were skeptical about. Douglas reports on E. H. Krick, in *Life and Health Special Cancer Prevention Issues*, 1978 on how what we eat affects the immune system, writes:

The human immune system is directly affected by what one eats, and thus the body's resistance to cancer may be the most important factor in preventing cancer. Excesses or deficiencies of any nutrient adversely affect the immune system, For example, a high protein diet depresses T-lymphocytes cells.<sup>223</sup>

### **Meat and Diets**

Much is not mentioned about meat and diabetes, but Douglas shares D. A. Snowden and R. L. Philip's position stated in *American Journal of Public Health*, 1985:

<sup>222</sup> Douglas, 320.

<sup>&</sup>lt;sup>221</sup> Ibid. 323.

<sup>&</sup>lt;sup>223</sup> Ibid. 323.

"In the Adventist Health Study, 'those who consumed meat six or more days a week, had a 3.8 times greater risk than vegetarian of dying of diabetes.""<sup>224</sup>

## The Effects of Alcohol in the Diet

Douglas quotes Ellen White when he wrote in 1885 saying, "Alcoholic beverages destroy 'reason and life,' and in 1905 that such drinking 'destroys the sensitive nerves of the brain,' she sounded like an overzealous temperance orator." 225

Modern scientists now confirm her findings. Douglas shares additional information on this matter. "In 1970, research indicated that 'even the moderate imbiber may incur some loss of irreplaceable brain cells – every time he drinks . . . The only difference between his loss of brain tissue and that of heavy drinker is one of degree."

He further summaries in *The Journal of Genetic Psychology*, "The ability to make decisions concerning moral issues begins to slip at very low alcohol intake levels (much below what is considered adequate to lower heart attack risk.)" <sup>227</sup>

## The Effects of Tea and Coffee in the Diet

Ellen White warns that "The continuous use of these nerve irritants is followed by headache, wakefulness, palpitation of the heart, indigestion, trembling, and many other evils, for they wear away at the life forces." <sup>228</sup>

<sup>225</sup> Douglas, 326.

<sup>&</sup>lt;sup>224</sup> Ibid.

 $<sup>^{226}</sup>$  Ibid. 327 - 328.

<sup>&</sup>lt;sup>227</sup> Ibid.

<sup>&</sup>lt;sup>228</sup> White, Counsels on Diet and Foods, 424.

# **Mental Impact of Diet**

Mrs. White cautioned that "students would accomplish much more in their studies if they never tasted meat. When the animal part of the human agent is strengthened by meat eating, the intellectual powers diminish proportionately."

The alternative suggested, "grains, fruits, nuts, vegetables constitutes the diet chosen for us by the Creator. These foods prepared in as simple and natural a manner as possible, are the most healthful and nourishing. They import a strength of power of endurance, and a vigor of intellect."

# **Spiritual Impact of Diet**

The spiritual battle is for control of the mind, because who controls the mind, controls the body. A weak body makes the mind vulnerable. "Religious life can be more successfully gained and maintained if meat is discarded, for this diet stimulates into intense activity lustful propensities, and enfeebles the moral and spiritual nature." <sup>231</sup>

In July 1988, The Surgeon General of the U.S.A. C. Everett Koop, M.D., released his report. His recommendation was based on over 2,500 scientific articles. His "prescription" for America was, "Less fat, more vegetables and fruits."<sup>232</sup>

These instructions were given to the Seventh-day Adventist Church by its visionary leader and prophetic voice Ellen White more than a century ago. One cannot negate the validity of the scientific facts to back up these counsels. Douglas quotes:

<sup>230</sup> Ibid. 81.

<sup>&</sup>lt;sup>229</sup> Ibid. 389.

<sup>&</sup>lt;sup>231</sup> Ibid. 389.

<sup>&</sup>lt;sup>232</sup> A Call to Get Fat Out, (U.S. News and World Report August 8, 1988) 59 – 61.

Adventist Morality study, 1958, and a joint study with the American Cancer Society, 1960. These California studies compared the cause of death for a large group of Seventh-day Adventist men with a similar number of non-Seventh-day Adventist men. The research does not differentiate between Adventist who eat meat daily, weekly, monthly or none at all. Neither does it distinguish between lacto-ova-vegetarians. Compared with non-seventh-day Adventist men, Adventist men can expect fewer deaths caused by some form of cancer . . . . Note the percent of fewer death expected among all Adventist for other kinds of cancer:

- 20 percent lung cancer
- 5 percent mouth, throat, and larynx cancer
- 32 percent bronchitis and emphysema
- 28 percent bladder cancer
- 34 percent esophageal cancer
- 13 percent cirrhosis of the liver
- 72 percent breast cancer
- 65 percent digestive tract cancer
- 62 percent leukemia
- 61 percent ovarian cancer
- 54 percent uterine cancer
- 66 percent other cancer
- 53 percent stroke
- 55 percent diabetes
- 42 percent peptic ulcer
- 31 percent suicides
- 59 percent death attributed to all medical causes<sup>233</sup>

The diet suggested by Seventh-day Adventists is the original diet. "Ellen White's simple and positive statement regarding the best diet for human beings has stood the test of time and research." <sup>234</sup> In order to know what are the best foods, we must study God's

<sup>&</sup>lt;sup>233</sup> Douglas, 335, 336.

<sup>&</sup>lt;sup>234</sup> Ibid. 324.

original plan for man's diet . . . grains, fruits, nuts and vegetable constitutes the diet chosen for us by the Creator. <sup>235</sup>

In addition to adequate diet, exercise, water, sunshine, temperance, air, and trust in Divine power, these principles serve as holistic life-style principles, which have been part of the good health and longevity that Adventists enjoy. Diet is the conduit that holds all the other aforementioned steps together. These so called "secrets of health," compliments diet in the pursuit of a healthier lifestyle.

#### Exercise

Complementary to diet,

exercise is the simple formula for increased energy, a firm body, stress relief, healthier skin, more self-confidence, effective in weight control, improved digestion and regularity, and reduce depression and the risk of heart disease and cancer. Exercise is not merely an option but essential to maintaining optimal health – both physical and mental.<sup>236</sup>

It continues, "Useful activity tends to prosperity; inactivity and laziness tend to adversity (Prov. 6: 6-13; 14:23). God prescribed activity for the first man and woman – care for their garden home in the open air (Gen. 2: 5, 15; 3:19). Christ himself set an example for physical activity. For most of His life He engaged in manual labor as a carpenter, and during His ministry worked the roads of Palestine."

## Water

<sup>235</sup> What, Counsels on Diets and Foods, 81.

<sup>&</sup>lt;sup>236</sup>Ministerial Association, *Seventh-day Adventist Believe*, (Hagerstown, MD: Review and Herald Publishing Association, 1988), 281.

<sup>&</sup>lt;sup>237</sup> Ibid.

Concerning water, there is a significant claim stating that next to air, what is the most important substance in the body . . . water, a solvent, diluents, lubricant, regulator, and cleanser . . . water internally aids in the assimilation of nutrients, in elimination of wastes and toxins . . . solvent that keeps various chemical solution that break down food and prepare it for absorption and use by the cells, or as hormones that regulate chemical – responses activity in the body, which are legion It keeps nutrients, chemicals and waste matter in solution and floats them to their destination within the body . . . water, the chief ingredient of body fluids, maintains them at the proper degree of dilution . . . It is a lubricant of all moving parts. It regulates body temperature . . . Water is a cleanser to keep the skin free from impurities thrown out through the pores of the skin. 238

# Sunlight

Heathman quotes the conclusions of Dr. Zane Kime, a medical doctor, in his article on sunlight, *A World Health Publication*. There are many healing agents in sunlight. Dr. Kime writes: "Sunlight effectively kills germs in the air, purifies water, and destroys bacteria on exposed surfaces, including the skin, and it produces antibacterial agents on the skin from the oils present there." He further advocates that sunlight combined with other health secrets are even more effective. He writes: "In my experience, sunlight treatments in conjunction with an unrefined diet and exercise program achieve faster and more dramatic results than diet and exercise alone."

<sup>&</sup>lt;sup>238</sup>Lee Heathman, and Mildred A. Tillotson, *Leaves From the Tree of Life* (Bushton, NY: Gateways to Health Publishing, 2004) 32.

<sup>&</sup>lt;sup>239</sup> Ibid. 42

<sup>&</sup>lt;sup>240</sup> Ibid.

He gives a comparison and contrast between exercise and sunlight affects the functions of the body:

## **Both Exercise and Sunlight**

**Increase** Decrease

Oxygen in the tissue Resting heart rate

Energy and endurance Respiratory rate

Muscular strength Lactic acid accusation in blood

Efficiency of the heart Blood pressure

Tolerance of stress Blood sugar<sup>241</sup>

# **Temperance**

The next category that is very significant is temperance. In reference to this Heathman writes: "Temperature is abstinence from all things/practice that are harmful, and the judicious use of that which is good." This insinuates a delicate balancing act in every aspect of life. He continues:

This topic covers much more than abstinence from alcoholic beverages, tea, coffee, tobacco and other narcotics. Many commonly used items are harmful to the body . . . And what about the judicious use of that which is good? Not just the quantity of food or activities needs to be considered, but also quality. Exercise is good, but when engaged in too strenuously, or for too long, the effects are harmful. The best quality of goods should be used, but when used in excess even good food will be harmful to the system. The same is true of all the activities in life. Good physical habits help to strengthen the mental and moral powers, as there are strong ties between the physical and moral health. Moderation in all things is the key. 243

<sup>&</sup>lt;sup>241</sup> Ibid. 4<sub>1</sub>.

<sup>&</sup>lt;sup>242</sup> Ibid 5<sub>1</sub>.

<sup>&</sup>lt;sup>243</sup> Ibid.

### Air

In the book, *Healthy Living*, Heathman quotes Ellen White, where she calls air an "Invigorating influence." He states:

Air, air the precious boon of heaven, which also may have. Will bless you with its invigorating influence if you will not refuse its entrance. Welcome it, cultivate a love for it, and it will prove a precious soother of nerves . . . The influence of pure fresh air is to cause the blood to circulate healthfully through the system. It refreshes the body and tends to remedy its strong and healthy, while at the same time its influence is decidedly left upon the mind, imparting a degree of serenity. It excites the appetite and renders digestion of food more perfect and induces sound, sweet sleep. <sup>244</sup>

#### Rest

Rest is considered to be the "restorer" of nature. White Claims:

Nature will restore their vigor and strength in their sleeping hours, if her laws are not violated . . . Misuse of the body shortens that period of time which God designs shall be used in His service. By allowing ourselves to form wrong habits, by keeping late hours, by gratifying appetite at the expense of health we lay the foundation for feebleness. By neglecting to take physical exercise, by over working mind or body, we unbalance the Nervous System. Those who shorten their lives by disregarding nature's law are guilty of robbery before God. 245

Douglas comments on the Belloc-Beslow study where, "it was noted that sleeping seven to eight nightly is one of the healthy factors that extends life as by as much as eleven years.<sup>246</sup>

<sup>&</sup>lt;sup>244</sup> Ibid 61

<sup>&</sup>lt;sup>245</sup> Ibid. 71.

<sup>&</sup>lt;sup>246</sup> Douglas, 328.

### **Trust In Divine Power**

Whenever someone buys a vehicle, there comes a manual with it. In order for that person to get good service out of that vehicle, he must follow the instructions of the manual. God has given mankind a manual for good health which is the word of God, and the nature book of science. Proverbs 3:5 states: "Trust in the Lord with all your heart, and lean not to your own understanding; in all your ways acknowledge him and he shall direct your paths." <sup>247</sup>

Douglas points out a remarkable statement that is worth noting. It states:

Bresklow's studies starlted the scientific community with his conclusions that Americans could add eleven years to their lives by following seven common-sense health habits: (1) Don't smoke; (2) use little or no alcohol; (3) Start the day with a good breakfast; (4) Avoid eating between meals; (5) Sleep seven to eight hours each night; (6) Engage in frequent, regular exercise; (7) Maintain ideal weight and avoid overweight. The statistics further suggested that the health benefit is cumulative and the absence of any one of the seven habits decreases life expectancy markedly.

These eight principles delineate the integration of the principle of mind, body, and soul, which informs Seventh-day Adventist theology and official lifestyle advocacy.

Together these principles express in and practice what the Seventh-day Adventist Church promotes in theory. They are in concert with the church's four prong theology of connection, of human dignity, of hope, and of wholeness, in that they connect the mind, body and soul in one accord with the principles of the church's health message; because of these eight health principles have had a transformative influence on the health of persons who practice them. The researcher strongly recommends them. In fact, this

<sup>&</sup>lt;sup>247</sup> Bible, New King James Version.

<sup>&</sup>lt;sup>248</sup> Ibid. 340.

research was designed to ascertain the degree to which preaching and teaching can apply these principles in the life of the Maranatha Seventh-day Adventist Church members.

### **CHAPTER FOUR**

## **METHODOLOGY**

Flowing from the problem statement, this project chose a quantitative method to investigate quantitative properties and their relationships to the hypothesis. Quantitative analysis was viewed as effective in extrapolating numerical data by employing objective facts to analyze the results.

Based on the hypothesis of this project, preaching and teaching biblical principles on dietary laws, the writer assumed that an attitudinal change would have been realized in participants towards dietary habits.

To capture differences and or change a pretest and post test measures were utilized to determine the validity of change scores. Participants were given a pretest questionnaire of twenty questions on dietary reform as a conduit to holistic health. Seven sermons were presented to test their understanding on dietary choices as these relate to holistic health practices.

The project also assumed that since the same instrument was employed as a pretest and a posttest should be regarded as parallel. The project design aimed at determining whether there was a connection between empirical observation and mathematical expression of quantitative relationships.

At the conclusion of the sermons, the very same questionnaire was given to participants as a post-test to analyze whether the writer's assumption was right that preaching and teaching biblical principles will lead to an attitudinal reform in dietary habits.

The sample size of twenty three participants was appropriate for the analysis used and was representative of the Maranatha Seven-day Adventist Church members to which the findings can be generalized. To ensure informed consent, participants were selected directly from the membership pool of the Maranatha Seventh-day Adventist Church on a volunteer basis. Although all members were invited to participate, only those who had successfully completed the pretest and post test and who had attended all seven sessions of the preaching/teaching exercise were deemed qualified to participate in this project.

These preaching/teaching sessions began and closed with prayers. Each session lasted for one hour, and comprised both a presentation by the writer and an open-ended questions and answers period where the participants and researcher clarified issues addressed or requested additional data on issues discussed.

The following topics were discussed:

- 1. Health Principles on Nutrition
- 2. Health Principles on Exercise
- 3. Health Principles on Water
- 4. Health Principles on Sunlight
- 5. Health Principles on Temperance
- 6. Health Principles on Air
- 7. Health Principles on Rest

Participants were asked to respond to an identical anonymous post test following the seven sessions of preaching/teaching biblical principles activities. This was given to ascertain whether there were objective differences in participants' responses to prove the hypothesis.

## **CHAPTER FIVE**

### FIELD EXPERIENCE

Conducting the field study with the members of the Maranatha Seventh-day

Adventist Church was a challenging yet rewarding experience. In an effort to facilitate

maximum participation, the project was advertized weeks prior to administration. All

members of the church were encouraged to participate in the project, and information

describing the purpose of the study was provided. Instructions regarding the surveys were

clearly delineated and an appropriate system for guarding confidentially was

implemented as required by the D. Min. program. The prerequisite for consideration as a

subject in the study was also outlined. Specifically, attendance at all sessions in

conjunction with completion of both the pre and post tests qualified members as subjects

in the field study.

The field study was conducted at the Maranatha Seventh-day Adventist Church. It was launched on May 23, 2009 and concluded on June 9, 2009. Each session commenced and ended with prayer. During the study, seven biblical principles of health PowerPoint lessons were presented in a preaching and teaching format. Interwoven throughout every lesson was the idea that diet was a conduit to the principles of a healthy lifestyle. It was practically reinforced via the healthy meals provided at the conclusion of each session which reflected the lesson-specific principles. Moreover, appeals to incorporate the knowledge gained into an attitudinal change were made at the end of each lesson.

The first session, Health Principles on Nutrition, was attended by approximately 70 adults all of which did not complete the pre-test survey. Information was shared

concerning the original nutritious diet, the dietary issues of clean and unclean meats, the basic food groups, diet related diseases, biblical dietary practices supported by scientific data and proper dietary practices. Participants were encouraged to ask questions during the presentation. The interactive discussions centered on diet and diseases with many sharing stories regarding personal dietary changes due to diet related diseases. After the session, all were invited to partake of a nutritious meal replicating the principles outlined in the lesson. Approximately 95% of the participants remained. Remarks such as: "A meal without meat wasn't too bad." "I'm glad we had fruits for desert instead of sweets." "This wasn't so bad. We should do it again" permeated the comments offered to the facilitator.

Session Two, Health Principles on Exercise, addressed the interrelationship between exercise and diet. Topics covered included the biblical foundation for exercise, the purpose of labor, the effects and importance of exercise, weight loss, types and appropriate amounts of exercises, the role of exercise in digestion and absorption, and exercise and diseases. Discussion focused on the need to exercise more. Some participants agreed to begin attending tennis classes offered by the church.

A slight decline in attendance with a few new participants was noted during the third session, Health Principles on Water. The researcher emphasized the biblical foundation of water, the importance of water, sufficient and insufficient amounts of water, and water intake and its role in digestion and health. Participants shared observations about the safety of faucet water and commercial bottled water. Lively discussions were aroused about which commercial bottled water was best and can you

drink too much water. Some suggested that water also be provided during church meals along with the church's typical punch drink.

The fourth presentation, Health Principles on Sunlight, reviewed the correlation between sunlight and good health, appropriate exposure, and how sunlight nourishes and energizes the body. Following the lesson, the group discussion converged on the sunlight needs of blacks (with melanin) and whites (with limited melanin) as well as the impact of sunlight on one's mood, specifically depression. Many validated the positive mood changing influence of sunlight. Others proposed transforming the walls in the church's meeting room into a more vibrant color from brown wood panels to white wood panels as a means of "practicing what we preach."

Temperance, the fifth lesson, sparked the most animated and intense discussions. The lesson's central themes of freedom of choice, overuse of good, abstinence from bad, and struggles with addictions generated the greatest dialogue. No one in the room appeared immune from the struggle with temperance. Participants raised questions about the moderate use of alcohol and recreational drugs. It was clear that battles with addictions in all of its forms resulting from a lack of temperance had left its destructive blueprint on the lives of participants and/or their loved ones. This highly controversial yet productive discourse led to testimonials related to the liberating power of Jesus in rendering the only true antidote to the devastation of addiction.

Session six covered the Health Principles on Air. Conversations and questions were few. This was due to the fundamental and universally acceptance of the imminent role of air to basic life. Nonetheless, the presentation provided information on air's impact on cells and its chemical make-up, breathing, ventilation, smoking, air's ability to

purify blood, invigorate vital organs and air related diseases. Participants expressed concern about the level of pollution in the inner city. This was ensued by a brief discussion on finding clean air in a city like Cincinnati.

The final session, lesson seven, focused on the Health Principles on Rest. The origin of rest, the sleep cycle, sleep deprivation, sleep related diseases, and biblical rest-the Sabbath, concluded the study. The majority of the participants were familiar with the Sabbath rest. Hence, questions and conversations centered on the sleep cycle and sleep related diseases. Participants were then shown data from pages 341 and 342 of Herbert Douglas' book indicating men who embrace the sessions' health principle live 8-9 years longer than the general population and women live 7.5 years longer than the men. As with each lesson, an appeal was made to apply the knowledge gained in one's daily Christian walk. Participants completed the post-test survey and the field study closed with a grand nutritious celebration.

# **Pre/Post-test Survey Results**

While between 60 to 70 members attended the various sessions, only twenty three attendees (approximately 33%) met the criteria to be considered subjects for the study. Overall, exposure to the seven-lesson seminar failed to produce significant global attitudinal changes between the pre and post tests results. Pre-test results indicated an overwhelming majority (approximately 90% - strongly agreed and agreed) of the participants employed the biblical principles of health. This suggests participants, the preponderance of which were baptized Seventh-day Adventists, were versed and aware of the church's health principle prior to the study and maintained their beliefs. Hence, with

such a high percentage of agreement preceding the lessons, the lack of significant positive change subsequent to the sessions is understandable.

However, there were attitudinal changes on three of the 20 questions. There were statistically significant (p-value-.05) differences between the pre and post tests for questions 17 (Stimulates such as coffee and caffeinated foods harm the body) and 20 (A person's diet affects his/her spirituality). The disclosure of the information in the fifth seminar appeared to have the greatest impact on participants' attitudes. Interestingly, after the lesson, the dialogue that ensued was the most lively and contentious of all the seminar discussions. Ironically, however, there was no significant difference between the pre and post tests for question 12 (Temperance should be applied to all health principles) although data pertaining to the question was covered too.

There was also a significant difference (p.-value-.10) between pre and post tests on question 4 (Washing, cleaning, praying over and cooking unclean meats makes them clean and biblically permissible to eat). The first seminar, which addressed unclean meats, was followed by a vegetarian banquet meal. Non-vegetarians and unclean meateaters had a first-hand opportunity to experience the information presented in the lesson. Taste buds yearned for more as many were pleasantly surprised during the feast.

Questions one and two which focused on biblical principles of health and the original biblical diet, respectively, showed no evidence of a significant difference between the pre and post test results. In both cases, 12% (pre and post) of participants agreed and 78% strongly agreed that the original biblical diet is the healthiest and should be followed. This was the highest level of agreement with few participants (10%) selecting disagree or neither disagree/agree option. The lack of attitudinal change would

be expected given the participants' pre-test level of knowledge, awareness and understanding of the biblical principles of health.

For question three, 59% (pre and post) of the participants believed people should still follow the Old Testament distinction between animal designed for human consumption. Again, there was no significant difference between the pre and post test results. Participants also strongly agreed (57% pre and post) that eating animal fat and blood is harmful to the body (question 5).

In the areas of good health begins with a nutritious breakfast (question 7), exercise is important to the mind and body (question 8) and the body daily requires 8-10 glasses of water (question 9), there was strong agreement 86 %, 77% and 73% pre and post tests, respectively. There was no evidence that the two test results differed. These commonly publicized health principles, may explain participants' keen awareness of this health message. If this is true, the sessions reinforced what both the Seventh-day Adventist Church and the secular world have endorsed.

The questions with the lowest level of strong agreement (pre and post) involved sunlight, air and stimulants. In terms of sunlight improving mental health (question 10), 35 % of the participants strongly agreed, with only 32 % strongly agreeing it improves physical health (question 11). Despite the information presented, there was no significant evidence of an attitudinal change in this area. Similarly, this low percentage of strong agreement (43%) was observed in participants' responses to question 13 (*Living in close, ill-ventilated rooms is harmful to the body*). These results suggest the need to investigate possible reasons for the low level of agreement and failure of the information presented to cause attitudinal changes.

Questions (#14 and #15) concerning rest, yielded 78% and 83% strong agreement (pre and post). There was a 17% agreement and 83% strong agreement to the question of "Humans need a day of rest (Sabbath)." Conversely, there was only a 60% level of strong agreement to question 16 (For optimal health, a person needs at least 8 hours of rest each day). This decline in strong agreement may be based on the fact that many people function on less hours of rest. The operative words for the question, nevertheless, were "optimal health" and not personal health.

Finally, 67% of the participants strongly agreed that proper diet can prevent lifestyle diseases. There was no significant difference between the pre and post test results.

The researcher learned several lessons from this project. First, the assumption of the hypothesis is that there was a lack of information, why the members were not following biblical principles of health, teaching, and preaching biblical principles on health would an attitudinal change, was a wrong assumption. Both pre and post tests indicate that the participants were well informed about the biblical principles on health.

Second, because the eating habits are often the result of deep seated problems, the surface level of information provided is not sufficient to address causes of eating addiction. Eating may be a symptom of a larger problem.

Third, the cost, cooking skills, time and inconvenience required to employ the principles outlined, may have been viewed as difficult. This roadblock could have prevented some attitudinal changes.

Fourth, within the culture, prevention and wellness is not a priority. People are willing to pay more to cure the disease rather than prevent it. It is quite possible that

members are socialized to believe that their health diet is in good condition as long as they are not experiencing any real pain or discomfort. A preventative model of health and wellness would be mindful of the process of disease growth.

Fifth, there is a false sense of security among the participants. They learn based on the Seventh-day Adventist Health Study that Seventh-day Adventist men live 8.9 years and the women, 7.5 longer than the general population. Perhaps they assume that not using the highly addictive diet is not as bad as the less highly addictive ones. The very good health that they value is their theory is the very thing that they under mind in practice. It is quite possible that members believe in good health. The result of the study implies that members believe it as an ideal but do not practice it in reality. They believe in the ideal of holistic living, but practice it in a piece-meal fashion. The research underscores that the members may have taken for granted the comfort of statistics. The statistic suggest that as a group, Seventh-day Adventists live longer than non-Seventh-day Adventist members, but it may very well be that the comparative standard used to arrive at this conclusion may be lower than the holistic health ideals the church advances. Several steps could have been taken to increase the validity of the study. These are: (1) Have a more diverse sample that is more reflective of the Christian community to see if the seminar had a greater impact. (2) Have a large sample size in order to generalize the findings. (3) With a larger and more diverse sample size, examine the differences among age group, gender and race. (4) There could have been a pretest of the instrument to fine tune the questions. (5) Questions that contain loaded words such as "should" would be eliminated. For example, the first question could be restated as, "It is important to follow the biblical principles of health." Or rephrasing No. 8 to read: "It is important to consume water more

than any other liquid" (5). The addition of a few open ended questions may have presented qualitative data that could further elaborate on the quantitative result. (6) There is a need to transform the double barrel items in question five into two separate questions.

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## **CHAPTER SIX**

# REFLECTION, SUMMARY AND CONCLUSION

The primary objective of this study was to explore the extent of dietary and holistic attitudinal changes among Maranatha Seventh-day Adventist church members exposed to teaching/preaching on biblical principles of health reform. The writer hypothesized that a seven-session biblical preaching/teaching intervention would result in reform in dietary habits. Analysis of pre and post survey results revealed that 78% of the participants employed biblical dietary principles in full, 12% report the same in part, while the other 10% did not apply these principles. Overall, results suggested no significant universal attitudinal change. However, there was a significant positive altering of viewpoint in two areas: (1) Stimulants such as coffee and caffeinated beverages harm the body and (2) A person's diet affects his/her spirituality. Opinions were marginally modified in another areas (Washing, cleaning, and prayer over and cook unclean meats makes them clean and biblically permissible to eat.)

The principles informing the dietary practices of the SDA church, which are rooted in the biblical Levitical system and implied in the New Testament vision for the Christian, were established in the belief system of church members. This was glaringly revealed prior to and after members were exposed to information on proven biblically-based healthy lifestyle behaviors. While the study failed to demonstrate global attitudinal changes after biblical holistic health teaching and preaching, it did confirm the comprehensive and unwavering beliefs of Seventh-day Adventists church members in New and Old Testament health philosophy. For those few areas in which members'

opinions were contrary to solo scriptura, teaching and preaching the original diet as identified in Genesis and culturally applied in Leviticus caused positive attitudinal changes.

The limited sampling of the study prevents the generalizing of the findings. However, it does portray a representative depiction of the religious beliefs and health habits of a local church. Nonetheless, it may imply that teaching and preaching biblical principles of health must be supplemented by seminars on behavior change to` reinforce specific dietary patterns currently in practice as well as leads to correcting negative lifestyle behaviors. Global generalization of the findings necessitates additional studies involving a representative sampling of Christians, non-Christians, and Seventh-day Adventist Christians. Replication of the results with any of the aforementioned groups has significant implications. It would suggest that there is a demand for developing and implementing health evangelism as a additional means of spreading God's desires that Christians "prosper and be in good health" (3 John 2).

Several post dissertation applications have surfaced. First, the findings imply that there is considerable work to be done at the local church. For example, the researcher plans on embodying in his own personal life, many of the dietary practices that this research project highlighted. As the spiritual leader, the researcher feels that he must set a good example of and practice what he preaches. Besides establishing exercise programs and nutritional recipes between members (based on a balanced vegetarian diet) issues of cost and access, require that local church members explore the need to establish a fresh fruits and vegetables cooperative. The purpose is to get local farmers involve in bringing their produce to members who wish to integrate dietary reform into their daily life.

Another important application is to devise programs that encourage change management attitudes and actions. These are necessary to help local church members sustain their commitment to holistic living. This is in response to the deep contrast between what members affirm, and what they do, according to the church's ideals on wellness practices.

Second, the researcher plans to develop teaching modules that captures the value of healthcare evangelism at the teaching institutions of the Seventh-day Adventist Church. It is vital for pastors in training, as well as those on the field, to be re-introduced to models of evangelism with the clarity of an exemplary teacher. It is felt that with an ever present and critical eye on the contemporary realities of disease prevention and wellness living, pastors are more likely to engage in healthcare evangelism. These modules could be woven into the fabric of general Christian Education within our primary and high schools as well. An anticipated result is that the next generation of Adventists will be able to make connections between the church's healthcare ideals and their own health practices.

Third, the researcher envisions that this research can be applied to the wider world. In this regard, the research underscores the place of alternative medicine in the variables of public health thinking and programs. Given the rising cost of health care, and the prevalence of life style diseases, the opportunity is ripe for Seventh-day Adventist to promote its health reform philosophy. Two recent events make this realization particularly relevant:

One is that Martin Doblmeier, a Jewish documentarian, is about to release "The Adventist," to the Public Broadcasting Service Corporation. He indicated that this documentary is designed to trace the church's healthcare practices and provide a rationale

for its success rate. This researcher believes that this documentary is likely to create openings for Adventists to articulate a normative understanding of bible-based healthy living to the world. It is anticipated that the documentary is likely to make non-Adventist more receptive to the church's healthcare message. It is quite possible also that Adventist can channel its dietary reform message to individuals with diverse religious orientation, in ways that demonstrate how wholeness is congruent with longevity and good health.

Two, President Obama's attempt to make healthcare universally available to all Americans has been stalled, if not fully derailed. Yet, most Americans feel that half a loaf is better than no loaf at all, on the issue of universal access to quality care. The president's bill, while coming on the on brink of hard economic times, has pointed to the need for more cost-effective healthcare initiatives. It is possible that Seventh-day Adventist could on the one hand, advocate alternative life style changes emphasizing justice and prosperity for all. On the other hand, the church can present its holistic philosophy as a cost effective practice. This view can be seen as an acceptance of God's holiness requirements. But Adventist will have to do this with an understanding that some human beings are not readily willing to make that connection.

In conclusion, there are historical, biblical and theological foundations for the dietary practices that provide incentives for Seventh-day Adventist Christians to willingly participate in good-health reform, and they do.

# **APPENDIX**

## **LESSONS**

The compilation of the seven lessons was taken from the following sources: *The Amazing Facts Health Magazine*, *The Seventh-day Adventist Believe* . . . 27 *Fundamental Doctrines*, *Studying Together With Mark Findley*, *A Love Song for the Sabbath* by Richard M. Davidson, *The Healthful Living Tract*, Donna Green Goodman Health Seminar, and various versions of the Bible. To ensure that the participants in the seminars were exposed to the extensive material presented, a question and answer format was utilized.

#### **LESSONS ONE**

## **Health Principles of Nutrition**

The focus on the health principles of diet is not primarily the prohibitions pointed out in the Bible, but the "blessings" of using "nutritious foods". Based on the creation narrative, the original diet given to the first couple by the Creator, God said, "I give you every seed-bearing plant on the face of the earth and every tree that has fruit with seed in it. They will be yours for food" (Genesis 1: 29 *Life Application Study Bible*). This text forms the foundation for the original diet. However, dieting ought to be about eating the best nutritious food available based on intelligent information. It is necessary to eat adequate portions that are good and eliminate that which is harmful. What is the reason necessary to focus on proper dieting practices? In the book *Seventh-day Adventist Believe*, the following quotation is found. "Today's health problems tend to center on the degenerative type of diseases that are directly traceable to diet and lifestyle. The diet God planned, consisting of grains, fruits, nuts and vegetables, offers the right nutritious

ingredients to support optimal health." p. 284. "After the Fall, God added to their diet "The plants of the fields" (Gen. 3: 18, NIV)

The Amazing Facts Health magazine concurs with these previous statements and adds:

These were the original God-given dietary plans for those living up to the time of the flood. Following the flood, due to the global obliteration of vegetation, a total plant-based diet was impossible for Noah and his family. In order to provide a consistent food source, God allowed for the eating of meat. However, God also designated the healthiest variety of animals for consumption, referring to 'clean.' See Leviticus 11; Deuteronomy 14: 3-21. Of course, instead of going into the ark in pairs, clean animals went in by sevens. *Amazing Facts Health* p. 4.

The magazine further argues that meat eating was necessary for man's survival, but attributes the "decline of longevity" to its consumption. The following quotation is used to substantiate this position.

"Before the flood, human life spans remained steady at around 900 years (Genesis 5). After the flood, we find that Noah's son Shem lived to be 600 years. Only nine generations later, Abraham lived to be just 175. Today, the average life expectancy is just a fraction of that of our pre flood ancestors" (ibid).

## What parts of the animal were forbidden to be eaten?

After the flood, God allowed mankind to eat meat, but "warned people not to eat meat that still had its lifeblood in it. (Genesis 9:4, Leviticus 3: 17, 1 Samuel 14: 32-34). Indeed, some tribes in Africa, like the Maasai, consume blood as part of their diet.

Autopsies performed on 50 Maasai men showed extensive heart disease . . . they still

have the worst life expectancy in the modern world (45 years for women and 42 years for men)" (ibid).

In Leviticus 3:17, God forbade eating of not only the blood but also the fat of the animals. God gave specific instruction in Leviticus 11: 1-12 concerning clean animals on land and sea. "Clean animals must have a split or divided hoof and chew their cud. Unclean animals were those like pigs that do not have the above features. Clean sea animals must have both fins and scales." *Studying Together a Ready-reference Bible Handbook*. p. 41.

What are some of the reasons why some of these animals are considered not suitable for food?

By nature, unclean animals do not constitute the best food. Many are either scavengers or predators – From the lion and swine to the vulture and bottom dwelling, type fish. Because of their habits they are more apt to be carriers of disease.

## What are some of the Biblical texts that ought to be carefully examined on diet?

Isaiah 66: 15-17. Those who rebel against God dietary standards will not be in the kingdom. Isaiah 66: 1-5 God links eating unclean foods to heathen Idolatry. Acts 10: 9-16 presents Peter's sheet with all kinds of unclean animals . . . Gods says arise and eat. Peter is horrified! What does God mean? Verse 17 indicates Peter is uncertain. . . . In Acts 10:28, Peter explains that the vision applies not to food but to calling Gentiles unclean. In this mission, God breaks the racial barrier. Peter is now open to the Gentiles. The vision deals with the fact that through the cross all barriers between people are removed. 3 John 2, God desires that we prosper and be in good health. 1 Corinthians 10: 31 whatever you eat or drink do all to the glory of God. Ibid. Proverbs 20:1. Wine is a

mockery, strong drink is raging. Proverbs 23: 29-32. Do not drink fermented wine. It brings sorrow, woe, and contention. It is deceptive and clouds the judgment. Proverbs 31: 4-5. Wine is not for kings or princes since it perverts wise judgment. Proverbs 4: 17 excessive wine leads to violence. Isaiah 5:11 woe to those who are intoxicated by wine.

#### What are the best sources of food?

Nature provides our food – fruits, grains, seeds, vegetables – with the vitamins and minerals needed to metabolize them packaged right in them. But as we process and concentrate our foods, vitamins and minerals are lost. Even the natural fiber, which is most often removed, is essential to good health.

## How do you get the maximum nutrients from your food source?

Whole fruits and vegetables – not juices – are best. Many foods are good raw.

Grains and legumes need to be thoroughly cooked to make the nutrients available.

## Are first hand or second hand nutrients better?

Remember too, that flesh meats are concentrated food; their nutrients come originally from vegetable sources. The original diet is very adequate without the risk of animal-transmitted disease.

## What are the five basic food groups needed?

- 1. <u>Carbohydrates</u> are sources of starches, sugars, and fibers. Starch and sugar are converted into glucose, which is the body's main fuel. Fiber, found primarily in plant foods, acts as a building agent that helps keep the intestines clean.
- 2. <u>Proteins</u> are broken down by the body and converted into amino acids, which are the building blocks for hormones, enzymes, and structural components of the body, such as the muscle tissue.

- 3. <u>Fats</u> are the most concentrated form of energy, supplying over twice as many calories per gram than protein and carbohydrates. It can also be efficiently stored for later use. The three natural types of fats are monounsaturated, polyunsaturated, and saturated. The unsaturated fats are by far the healthiest form, especially when it comes from plant sources.
- 4. <u>Mineral and Vitamins</u> are essential components for diet. Whole foods, which have been refined as little as possible, naturally contain the highest amount of these nutrients. Photochemical, found only in plants, are added bonuses thought to play a role in prevention of many diseases.

# Do you need cholesterol in your diet?

High density lipoprotein (HDL) is the healthy form of cholesterol and actually helps to remove bad cholesterol from the body, returning it to the liver for recycling . . . cholsterol is found only in meat and animal products such as milk and eggs. However, new born babies are the only humans who actually need dietary sources of cholesterol – which ideally comes from breast milk because of the liver's ability to produce cholesterol; we simply don't need a dietary source of cholesterol past breastfeeding age.

# Is there a danger in "skipping" breakfast?

In one study, skipping breakfast was linked to an increase risk of premature death. By far, the best meal to skip or, at least minimize, is dinner. Another study reported better weight loss, improvement in diabetic conditions, and increase thyroid efficiency among a 595 people who consumed their last meal of the day by 3:00 p.m.

# Is there any evidence from research to prove that there is connection between nutrition, health and longevity?

Cardiovascular Disease: It is harmful to have a little cholesterol here and there?

One study found that consuming a balanced plant-base diet reduced the incidence of heart disease by 86 percent. Another scientific article pointed out that a (vegan) diet could prevent 90 percent of all strokes and 97 percent of all heart attacks. According to, Dr. Hans Diehl, The average risk of heart disease for a man eating meat, eggs, and dairy products are 45 percent.

# Do some foods actually offer protection against heart disease?

In one study, people who ate nuts at least five times a week lowered their risk of heart attack by 50 percent . . . Eating ample amounts of whole grain has also been found to reduce cardiovascular disease by 25 percent . . . Finally, eating your fruits and vegetables can also protect you against heart disease. A study by the Harvard School of Public Health found that consuming leafy green vegetables reduced the risk of heart disease by 23 percent. Furthermore, those who consumed the largest amount of fruits and vegetables had a 31 percent lower stroke risk.

# Diabetes: Is it true that diabetes is caused by eating sugar?

If eating simple carbohydrates (highly refined foods, such as sugar) contributes to excess body weight, then yes, the risk of type two diabetes is increased. However, research has shown that consuming complex plant-based carbohydrates (food as grown) actually reduces the risk of developing diabetes. A study conducted at the National Public Institute in Finland found that people who ate the largest quality of whole grains had a 61 percent reduced risk of developing diabetes.

#### What about Fat?

The two most significant risk factors in developing diabetes have to do with fat.

Being overweight is one risk factor . . . A study involving 1,300 Colorado residents determined that those with low-carbohydrate, high-fat diets were much more likely to develop diabetes. One study determined that consumption of partially hydrogenated oils is responsible for approximately 40 percent of all cases of type two diabetes in the United States.

## Can type two diabetes be reversed?

A total vegetarian diet not only prevents but can reverse diabetes. In a study conducted at the world renowned Pritikin Center, 40 medication—dependent diabetics were given a low fat plant-based diet combined with moderate exercise. Within 26 days of the start of the program, 34 participants were able to discontinue all diabetic medication.

## Cancer: Does food impact your risk?

Fruits and vegetables are high in vitamins, fiber, and antioxidants – some of the best cancer-fighting ingredients that exist. In fact, one study found men who eat three or more servings of cruciferous vegetables (broccoli, cauliflower, etc.) per week lower their risk of prostate cancer by 41 percent. The World Cancer Research Fund found that people who consumed five or more servings of fruits and vegetables reduced their cancer risk by approximately 50 percent.

Conversely, diets rich in red meat and cholesterol have been linked to colon cancer. Numerous studies have shown the relationship between a high-sugar diet and cancer. High sugar intake has been linked to an increased risk of cancer of the colon,

rectum, breast, ovaries, uterus, prostate, kidney, as well as cancer of the central nervous system. One reason suggested is that sugar weakens the immune system.

## **Mental Health: food for thought:**

Studies have actually shown that elevated levels of cholesterol can affect mental health. One study revealed that elevated cholesterol is a significant factor in mild impairment. Diet plays a significant role in the development of Alzheimer's disease:

Consuming large amounts of partially hydrogenated fats increases the risk of Alzheimer's by almost 2.5 times.

# What are some of the original foods that help prevent cancer? What are barriers?

Foods in the Genesis diet are some of the best in preventing and fighting cancer.

These include beans, barriers, broccoli, cauliflower, cabbage, Brussels sprouts, bok choy, kale, dark green leafy vegetables, flaxseed, garlic, grapes and grape juice, soybeans, tomatoes and whole grain.

## Obesity: Does the type of food you eat really affect weight gain?

An astounding 63 percent of American adults are overweight and 20 percent are suffering obesity . . . The CDC also reports that approximately 13 percent of America's youth are overweight. Obese teens have a shirt lifespan, dying at an average age of 46. We also know today that people who are overweight have a significantly higher risk of developing diabetes, cancer, heart disease, stroke, high blood pressure, osteoarthritis, and other potentially serious disease.

## Do soft drinks contribute to the weight problem?

Soft drinks are the largest source of sugar in American diet. . . According to the USDA, sugar consumption has been steadily increasing since 1982, with highly refined

foods as the largest contribution. The average 12-ounce can of soda has ten teaspoons of sugar – but even white bread contains roughly 3 teaspoon per slice.

# Does "gazing" help you to loose weight faster?

The term "gazing" refers to decreasing the size of meats while increasing the frequency. This approach has been suggested by weight loss "experts" as a logical approach to keeping the body's blood sugar at steady levels throughout the day.

However, such a diet can be harmful. Several studies have shown that snacking between meals increases the risk of developing colon cancer. The healthiest approach to stable blood sugar levels is to avoid highly refined foods and increase your intake of dietary fiber.

## Can you eat too much of the good food?

Even an extremely healthy diet can be unhealthy. Overeating is the number one cause of obesity in the United States and has been linked to the development of numerous digestive disorders such as gastro-esophageal reflux disorder, hiatal hernia, and cancers of the esophagus and stomach.

# Are there any risks in eating fish?

Once a reliable and nutritious food source, excessive fish consumption has been linked to heavy metal poisoning, cancer, birth defect, and numerous other diseases.

Unfortunately, fish in even the cleanest water are contaminated with toxic substances such as mercury, PCBs and DDT. This is due to the fact that fish absorb and concentrate toxins in their flesh.

# What is the dual application to the bread of life?

Complex carbohydrates, omega-3 acids, vitamins, minerals, phylo-nutrients, and a plant-based diet can give us a better quality of life and increase our longevity. However, we all will evidently face death. Yet if there was a food that promised to reverse the raverages of death and give eternal youth, would you eat it? There is one "food" that promises such amazing results.

Jesus said, "I am the bread of life. He who comes shall never hunger. . . . And the one who comes to me I will no means cast out." (John 6: 35, 37 NKJV).

# Is there an antidote to solve all diet problems?

John says, "In the middle of its street, and either side of the river, was a tree of life, which bore twelve fruits every month. The leaves of the tree are for the healing of the nations." (Revelation 22: 2).

God promises in the New heaven and New earth, He will solve our dietary, disease and death problems. While we remain on earth, we need to eat intelligently. We need to eat adequate portions of good food and avoid what is bad, so we can have a healthy body, mind and spirit.

#### LESSON TWO

## **Health Principles on Exercise**

The health principles of exercise have their roots in the biblical account of creation. There is an interrelationship between exercise and diet as it relates to good health.

#### What is the biblical foundation of exercise?

- A. Then God said, Let us make man in our own image, in our own likeness, and let them rule over fish of the sea and the birds of the air, over the livestock, over all the creatures that moves along the ground (Genesis 1:26).
- B. The Lord God took the man and put him in the garden of Eden to work it and to care for it. (Genesis 2:15).

# What was the purpose of labor?

God appointed labor as a blessing to man, to occupy his mind, to strengthen his body, and to develop his faculties. In mental and physical activity Adam found one of the highest pleasures of his holy existence.

# Before sin, what was man's attitude towards labor?

To the dwellers in Eden was committed the care of the garden, "to dress it and keep it." Their occupation was not wearisome, but pleasant and invigorating.

# What was the original exercise routine?

When Adam was in the Garden of Eden, he had a perfect exercise habit, (indeed, gardening can be a very effective total body workout.)

The book *Seventh-day Adventist Believe* asserts that exercise is a blessing.

Regular exercise is the simple formula for increased energy, a firm body, stress relief,

healthier skin, more self-confidence, effective weight control, improved digestion and regularity, and reduced depression and the risk of heart disease and cancer. Exercise is not merely an option, it is essential to maintain optimal health both physical and mental.

This book further compares and contrasts the effects of exercise. Useful activity tends to prosperity, inactivity and laziness tends to adversity (Proverbs 6: 6-13). God prescribed activity for the first man and woman – care for their garden home in open air (Genesis 2:15; 3:19). Christ Himself set an example of physical activity, for most of His life He was engaged in manual labor as a carpenter, and during His ministry He walked the roads of Palestine.

## When did the exercise routine become wearisome and burdensome?

- A. To Adam He said, "Because you listened to your wife and ate from the tree about which I commanded you, you must not eat of it." Cursed is the ground because of you; through painful toil you will eat of it all the days of your life. By the sweat of your brow you will eat of your food. Genesis 3:17, 19 *Bible Amplified Version*
- B. Those who regard work as a course, attended though it be with weariness and pain, are cherishing an error. Adam was not to be idle. Our Creator, who understands what is good for man's happiness, appointed Adam his work. The Creator has prepared no place for the stagnating practice of indolence.

## Related to exercise, what is the importance of action and body function?

Action is a law of our being. Every organ of the body has its appointed place upon the performance of which its development and strength depends. The normal action of all the organs gives strength and vigor, while the tendency of disuse is toward decay and death.

## Is exercise necessary every day?

- A. Everyone needs some vigorous physical labor every day. Even walking is an excellent form of exercise . . . take time for a brisk twenty minutes walk before breakfast or at bedtime.
- B. Perfect health depends upon perfect circulation; good circulation depends to a large degree upon the muscle, the tone of the body, and muscle tone is developed by exercise.

# What happens to the body during exercise?

Exercise is essential to good health, and the entire body is affected. Muscle fibers contract and release, the heart pumps more rapidly, and the lungs work harder to get more oxygen to the body. These actions trigger increased enzyme reactions, nerve stimulations, metabolic enhancement, and more. Exercise is an awesome event.

# Why is it necessary to have a good workout?

Exercise can help you to:

- Burn calories
- Increase strength and endurance
- Feel better and have more energy
- Optimize heart health
- Live longer, happier life

All these goals can be accomplished with even a basic understanding of physiology.

#### What routine is the best for exercise?

Muscles involved in anaerobic (need minimal oxygen) exercise are known as "fast twitch" muscles. To increase your strength, these muscles must be challenged with a task they have not been required to do before. These muscles "learn" to enlarge to strengthen in case they run into the same task again. Weight training that focuses on lifting heavier weights with less frequency target these muscles.

"Slow twitch" muscles are responsible for endurance activities and are used in aerobic (needing lots of oxygen) exercise. Although they don't "bulk up," they are responsible for significant calorie burning.

These two "muscle types," of exercise must be part of, and be applied in the "best fitness program." This routine emphasizes endurance and strength training, "will boost metabolism, burn fat, strengthen cardiovascular system, and more."

## What is the Primary goal of weight loss?

Calories going in must be less than calories lost . . . to lose weight, your energy expenditure must be more than the number of calories you eat. . . The rate at which your body uses calories simply to stay alive is known as "basal metabolic rate" (BMR).

Studies have shown that building more muscles mass, through weight training; actually increase BMR – which means your body will naturally burn more calories in a day.

#### What is the best aerobic exercise?

Thomas Jefferson once said, "The sovereign invigorator of the body is exercise, and of all exercises walking is best . . . Aerobic exercise like brisk walking, will burn addition calories per hour on top of your BMR. So a regular exercise routine that alternates between aerobics and anaerobic exercise is best for sustained weight loss."

Another important consideration for burning fat is exercise intensity. It should be moderate not intense. During moderate exercise, fat is used as energy, but carbohydrate (glucose) becomes the fuel choice . . . Walking might be most effective. Walking is also a "low impact" exercise, meaning there is a lower risk for injury and less shock to joints, particularly the knees, when compared to running . . . walking works every major muscle group. A sudden high intensity work out can be deadly. In one study, researchers estimated that almost half of all heart attacks are triggered by strenuous physical effort.

Researchers have found evidence that proves there is a connection between exercise, health and longevity.

# What types of exercise can prevent heart disease?

Men who engage in regular physical activity have significantly reduced the risk of developing heart disease.

Findings from a study conducted by the Harvard School of Public Health.

- Running more than an hour a week decreased the risk of heart disease by 42 percent.
- Walking 30 minutes a day or more reduced the risk of heart disease by 18 percent.
- Connection between the pace of walking and heart disease: the more intense the workout, the smaller the risk.
- Weight training also has a preventative effort: 30 minutes or more of weight training per week means a 23 percent heart disease risk reduction.
- For women, those who walk more than one hour per week have a 50 percent reduce risk of developing heart disease.

## What is the connection between exercise and stroke reduction?

- A study that examined the lifestyle patterns of 1,130 Harvard alumni found that moderate exercise also decreased the risk of stroke.
- Those who burned between 2,000 and 2,999 calories per week saw a total reduction in stroke risk of 46 percent.
- They found walking 12 miles per week decreased the risk by 29 percent. Ibid.

# What types of cancer are affected by exercise?

The preventative effects of regular exercise against cancer appear to be gender specific for men: regular exercise decreased prostate cancer risk by 74 percent.

- Lower risk of colon cancer
- Men who worked in sedentary jobs had a 60 percent increase in the development of colon cancer.

For women: - regular exercise is linked to a decreased risk of great cancer and other female specific cancers

- Regular exercise decreased the risk of breast cancer by 37 percent.
- Women already affected by breast cancer walked between six to eight hours a
  week, they decreased their risk of early death by 50 percent.
- College athletes were less likely to develop cancer of the breast, uterus, ovaries, vagina and cervix.

#### Does exercise reduce the risk factors of diabetes?

Exercise among diabetic patients cause

- Weight loss
- Increase energy output

- Regular moderate exercise is important in sustaining weight loss
- Ninety-one percent of those who exercise an hour a day such as "a brisk walk," sustain weight loss.
- One study compared those pre-diabetic who were taking metformin, a diabetic medication "had a 31 percent reduction in the risk of developing diabetes."
   However, regular moderate exercise cut the risk by 58 percent, (Results for those 60 years and older were even more dramatic: 71 percent).
- A lifestyle center . . .Weimar Center of Health & Education in California, has had tremendous success in reversing diabetes . . . The program stresses health education, exercise, a healthy diet, and other life-style factors helping to reach optimal health.

# What are other health factors that exercise can improve?

- Hearing
- Improve memory and concentration among the elderly and has been linked to improve cognition performance in Alzheimer's disease
- Think more clearly
- Boast mental performance
- Contribute to strong bones
- Relieve arthritis pain

## How does exercise aid in dieting?

- Help the body to digest food
- Lowers the cholesterol level
- Curbs the tendency to overeat

- Keeps you trim, help you lose fat and preserve muscle
- Improves sleep
- Lower your risk of heart disease, high blood pressure, gallstones and colon cancer
- Decrease migraine headaches
- Reserve the natural muscle loss that occur with aging
- Wholesome foods are needed to supply fuel and other nutrients for active cells
- A more alkaline bloodstream is conducive to greater endurance. Heatman and Tillotson p. 1-5.

# What is the dual purpose of exercise?

Just as we exercise to promote bodily health, we must exercise to receive spiritual health. To reach this goal, we are to exercise faith. One writer puts it this way:

Let us lay aside every weight, and the sin which so easily ensnares us, and let us run with endurance the race that is set before us, looking unto Jesus, the author and finisher of our faith, who for the joy that was set before Him endured the cross, despising the shame, and has sat down at the right hand of the throne of God." (Hebrews 12:1, 2 NKJV). – *Amazing Facts Health Magazine*, p. 17.

Isaiah promises a renewal of strength for those who physically and spiritually exercise. He compares them to an eagle.

They that wait upon the Lord shall renew their strength; they shall mount up with wings as eagles, they shall run and not be weary. – (Isaiah 40: 31 KJV).

Let us get adequate exercise.

#### LESSON THREE

# **Health Principles of Water**

#### What is the Biblical Foundation on water?

In the Biblical narrative of creation found in Genesis 1, water is mentioned multiple times and multiple days during the seven day cycle of creation.

On the second day of creation, "And God said, Let there be an expanse between the water to separate the water from the water." Genesis 1:6. "So God made the expanse and separated the water under the expanse from the water above it." Genesis 1:7.

The following is another outline of the significance of water in Genesis Chapter one:

- Second day of creation separation of the water from the water, Genesis 1:6
- Second day of creation separation of water from the expense above it, Genesis
   1:7.
- On the third day of creation, water was gathered in one place and dry land appeared. Genesis 1:9.
- The gathering of the water was called the sea. Genesis 1:10.
- On the fourth day creation, God cause water to bring forth abundant living creatures. Genesis 1: 20-22.
- On the firth day of creation God gave man dominion over "the fish of the sea." Genesis 1: 26, 28.

#### Where was the first account of fresh water mentioned?

The first biblical account of fresh water is found in Genesis 2:10, "A river that watered the garden flowed from Eden," from there it was separated into four headwaters.

The name of the rivers and the region they covered are found in Genesis 2: 11-14.

Why is water important to healthy living?

- "Your body is approximately sixty percent water. The cells of the body contain and must be bathed in various fluids which are mostly water.
- Water is the vehicle of transport for nutrients coming into the cells and waste material carried away.
- Water is the medium for chemical balances.
- Water is necessary for the production of digestive juices.
- Water is necessary for the healthy action of the stomach and intestine.
- Water is important in the intricate chemical reactions occurring in your body are affected by changes in temperature." *Healthful Living Series*.

## What is the best liquid?

- Water is the best liquid possible to cleanse the tissues . . . drink some a little before or after a meal. EGW Healthful Living p.226.
- It satisfies thirst
- It helps to supply the needs of the system
- It aids in resisting diseases.

## Why is water so essential to life?

- Water, composed of two gases, oxygen and hydrogen, is the medium in which living cells live and function.
- Over two thirds of the human body is composed of water in some form.
- Next to air, water is the most important substance needed by the body.

- Water is absolutely essential for the various organs and cells to perform their various tasks.
- Water is so fluid and mobile it can circulate through the tiniest of capillaries, and
   by the process of osmosis can even slip through membranes.

## What amount of water is needed daily?

"If you were to drink all the water your body needed to use in a day you would need to drink gallons of water. But your body contains an efficient filter system for recycling much of the water, so that you only need to drink 6 or seven glasses of pure water every day." – *Healhfuly Living Series Tract*.

#### Should water use be limited?

The free use of water internally aids in assimilation of nutrients, in elimination of wastes and toxins

## What is the important use of water as a solvent?

- Water is the solvent that keeps various chemicals in solution that break down the
  food and prepares it for absorption and use in the cells or as hormones that
  regulate chemical-responsive activities in the body, which are legion.
- Water keeps nutrients, chemical, and waste matter in solution and floats them to their destination within the body.

## What is the important use of water?

 Blood thickens if not enough water is taken. This hinders free circulation, adding an extra burden on the heart; and the kidneys, lungs, pores of the skin and hardens in their work.

- Thick blood cannot adequately dissolve and remove toxic water, so they
  accumulate in the body all the way back to the cells, and inside of the body may
  become like a stagnant pool.
- Water, the chief ingredient of body fluids, maintains them at the proper degree of dilution, when taken in adequate amounts.

# What is the importance of water as a lubricant?

• It is the lubricant of all moving parts.

# What is the importance of water as a regulator?

- It regulates body temperature.
- All vital activities produce heat which could destroy the vitality of some tissues if they were not quickly dissipated.
- As water evaporates from the skin, it cools the body.
- Water absorbs a great amount of heat as it evaporates.

## What is the importance of water as a cleanser?

- Water is a cleanser to keep the skin free from impurities thrown out through the pores of the skin.
- Water is a solvent; it gives the body an internal bath.
- Water is a purifying medium in which the cells live and work quickening their works.

## What happens when the body lacks sufficient water?

- Body cells shrivel, and cannot function properly.
- Toxins accumulate in the body,
- It causes depression, hypothermia, anorexia, and mental confusion.

- Lower blood pressure because of reduced volume of blood.
- With long term increased blood pressure as the heart works harder to pump thinker blood.
- Extra burden on the heart
- Headache, general weakness and discomfort.
- Digestive complaints, concluding constipation.
- Kidney and/or bladder stones.
- Severe infections
- Muscle cramps
- Impaired chemical reaction.

# How can water be used as an effective therapeutic agent?

- To equalize the circulation of the body.
- To stimulate activities of the immune system and internal organs.
- As a tonic or sedative.
- To alter body temperature

# How do you apply water therapy?

- Hot foot baths
- Fermentations
- Steam inhalations
- Wet sheet packs
- Contrast showers.

## How much water does one really need?

The following recommendations, from the World Health Organization (WHO), are for daily water intake under normal environmental conditions: Females: approximately nine eight-ounce glasses; Males: approximately twelve eight-ounce glasses.

On an average, four percent of the body water is lost through urine, bowel movements, sweating, and breathing. Of course, copious sweating and breathing from exercise will necessitate additional water intake slightly above recommendation.

# What are early symptoms of dehydration?

Mild dehydration is a one to three percent reduction of body weight as a result of fluid loss and can cause:

- Headache
- Fatigue
- Confusion
- Loss of appetite
- Flushed skin
- Heat intolerance
- Light headedness
- Dry mouth and eyes
- Lack of skin elasticity
- Stomach pains, which could be confused as hunger
- Slower metabolism which can result in weight gain.

## What are the serious consequences of unchecked dehydration?

Heat exhaustion

- Nausea
- Vomiting
- Severe dehydration is life threatening
- Elderly people are of higher risk
- Severe dehydration is one of the primary reasons for hospitalization among elderly.
- Those over 85 years old are six times more likely to be hospitalized than those aged 65 to 69.
- Dehydration in elderly can easily progress to an untreatable state.
- Among those hospitalized with dehydration, an estimated 18 percent will die within 30 days despite medical treatment.

# What is the evidence that there is a connection between water intake and health and longevity?

- Heart Disease: A recent study that included more than 20,000 participants
  discovered that men who drink five to eight-ounce glasses of water a day cut their
  risk of heart disease by 46 percent. The number was greater for women: 59
  percent.
- Hypertension: One study found that individuals with orthostatic hypertension (low blood pressure when standing up from a seated position) were able to tolerate position changes after drinking one to two glasses of water. Water seems to have an unexplainable vasopressin effect, meaning that the absorption of water in the bloodstream was the main cause of the increase in blood pressure.

- Colon Cancer: Another study found that postmenopausal women who drank more then five glasses of water a day lower their risk of breast cancer by 79 percent.
- Gall Bladder Cancer: Research has also shown that individuals can lower their risk of gall bladder cancer by 51 percent simply by drinking enough water.
- Obesity: water can burn unwanted calories. A study to determine water's effect on metabolism discovered that, after drinking about two glasses of water, participants metabolic rates increased by an average of 30 percent.
- Urinary track health: according to the National Kidney Research Fund, increasing
  water intake to approximately eight glasses a day is best to ensure proper kidney
  functions, avoid kidney stones, flush impurities from the blood and protect against
  urinary tract infections.
- Arthritis Pain: Drinking adequate water every day can significantly ease back and
  joint pain, your joints are cushioned by fluid-filled sacs, but when you are
  dehydrated, your body draws water from these essential areas to supply water to
  more vital areas. As a result, joints are not adequately cushioned and movement
  can become painful.
- Water your IQ: Water plays an extremely important role in brain function. It is
  vital to energy production in your cells and neurotransmission when your body is
  dehydrated, nerve transmission is compromised and brain function is diminished.
  Foggy thinking can be the result of a dry brain.
- Digestive Health: Suggestions from physicians at the Weimar Center of Health
   Education

- Drink large amounts of warm water in the morning to flush your digestive system and reduce the risk of constipation.
- 2. Drink purified or distilled water when possible
- 3. Drink between meals to ensure optimal digestion; it is best to abstain from water about one half hour before meals and one half hour after eating. Too much water will dilute stomach enzymes and interrupt the digestion process.

# Does drinking other beverages (fruit juice, coffee, tea, etc.) provide the same benefits as plain water?

Research has shown that women who consume large quantities of non water beverages increase their risk of a fatal heart attack by two and a half times. The same study showed that men increase their risk by 50 percent.

# Why is water so important to good health?

About 83 percent of your blood is water. If that ratio drops just five percent, you will no longer be able to see. Another ten percent and you will be unable to hear. A 12 percent reduction leads to your blood thickening, making it impossible for your heart to pump it, which leads to death.

## Why is it important to drink adequate water daily?

Drinking six to eight glasses of pure water a day would aid in maintaining efficient, happy well-being. Another important function of water is the use of cleanliness and the relaxation if affords.

# What parallel does Jesus draws between water and eternal life?

As important as water is to our health, something else is even more important. Jesus is called the living water who provides eternal life. In the same way that many people go through life chronically dehydrated, many more go through life spiritually dehydrated . . . speaking of water, Jesus said, "whoever drink of this water will thirst again, but whoever drinks of the water that I shall give him will never thirst. But the water that I shall give him will become a fountain of water springing up into everlasting life." (John 4:13, 14 NKJV).

As John concludes Revelation, he writes "Let him who thirst come . . . take the water of life freely." (22:17). *Amazing Health* p. 23.

It is important to drink an adequate portion of both physical and spiritual water to quench our thirst both here and now, and the hereafter. Drink freely.

#### **LESSON IV**

## **Health Principles on Sunlight**

## Why is sunlight important for good health?

It is important to note in the creation account that the first thing God made was light. In Genesis 1: 3 -5 "And God said, 'let there be light,' and He separated the light from the darkness. God called the light 'day,' and the darkness 'night.' And there was evening, and there was morning – The first day." - *Life Application Study Bible*.

## What are some of the health benefits of sunlight?

Sunshine on me

- Provides vitamin D.
- Decreases cholesterol.
  - i. Turns it into Vitamin D
  - ii. Connected now to chronic disease prevention
  - iii. Receptor site on every cell
- Prevents depression
- Stimulates immune system
- Lowers blood sugar level
- Lowers blood pressure level
- 15 20 minutes exposure/day
  - 200–400 IU/day recommended/10,000 from sun <sup>1</sup>

<sup>&</sup>lt;sup>1</sup> Donna Green Goodman, Health Seminar Allegheny West Conference of Seventh-day Adventist, October 27, 2009.

## What is good about light?

Light is essential to all life – so essential that God provided the sun as a constant source to supply the energy necessary to sustain all life on earth. The energy used by plants growing in your garden, a cheetah running at top speed, and even the gasoline that powers your car can all be traced back to the energy supplied by sunlight.

## Can sunlight improve health?

Moderation in sunlight can:

- Ease tension
- Increase immunity
- Prevent diseases
- Improve sleep
- Increase mental performance
- Heighten metabolism
- Relieve arthritic pains
- Boost energy levels

Many benefits of sunlight are connected to vitamin D. Our bodies must have the UVB radiation found in sunlight to make this essential health-promoting vitamin. When exposed to sunlight, our skin begins to protect itself from overexposure by producing melanin, a chemical that darkens skin, and a vitamin D precursor. Increased melanin and vitamin D allow increased exposure to the sun without burning. - Amazing Health. Eight Bible Secrets for a longer and stronger life. P. 24, 25.

#### What amount of exposure to sunlight is needed?

Approximately 30 minutes a day, three times a week, in direct sunlight is adequate for most Caucasians. The darker your skin, the more sun exposure one needs to obtain an adequate amount of vitamin D. Beware, however, that barriers that reduce ultraviolet (UV) radiation (sunscreen, windows, etc.) also will reduce vitamin D production in your body.

#### Can you get too much sunlight?

Sunlight is best in moderation. Protein and genetic tissue are damaged each time your skin burns . . . The body will make adequate Vitamin D with only one quarter of the sunlight required to cause sunburn.

Although skin cancer claims the lives of approximately 2,000 Americans per year, researchers believe that regular, moderate exposure to the sun can actually prevent 138,000 deaths from other types of cancer each year.

Are there any scientific evidence to prove there is a connection between sunlight exposure, health, and longevity?

Cardiovascular Disease: Can sunlight help your heart: According to nutrition experts, Vitamin D helps the intestines more efficiently absorb column and phosphorous – elements that can lower blood pressure . . . researchers from Howard University published a study looking at the correlation between Vitamin D levels and heart disease. The results were startling: Those with inadequate Vitamin D had more than twice the risk for heart attacks than those with optimal levels.

## Cancer: Can sunlight actually prevent cancer?

Exposure to sunlight has also been found to prevent certain cancers. One study concluded that moderate sunlight exposure decreased colon cancer risk up to 80 percent, indeed, Vitamin D is believed to actually stop a variety of cancer cells from growing – including leukemia, lymphoma, and melanoma (skin cancer).

## Diabetes: How does sunlight affect diabetes?

Vitamin D also has an incredible preventative effect against juvenile diabetes.

One study found children in Finland given a Vitamin D supplement had an 88 percent less chance of developing type one diabetes. Another study of American adults showed a benefit of adequate sunlight exposure on numerous type two diabetes risk factors. Most notably, adequate intake of Vitamin D reduced the risk of obesity.

## **Obesity: Can sunlight wear off obesity?**

One advantage of moderate sunlight exposure is that it increases the production of serotonin, the "feel good" hormone . . . serotonin is elevated significantly by eating excessive amounts of refined carbohydrates. . . linked with significantly increased risk of obesity, so it is healthier to get your serotonin by sunlight rather from junk food" (ibid).

## "Osteoporosis" Can sunlight reach our bones?

Vitamin D is very important for bone health. In one study, researchers reported that calcium and Vitamin D reduced the risk of hip fractures by 43 percent (The study focused on women 78 to 90, a high-risk group for osteoporosis). Furthermore, adequate Vitamin D levels, along with sufficient calcium, have been shown to increase bone density in people who are prone to osteoporosis.

## Skin Health: Is sunlight bad for your skin?

Sunlight is antibacterial, antiviral, and antifungal. Thus, it is absolutely beneficial for certain skin conditions such as acne, athlete's foot, and viral infections and more . . . . Frequent and excessive tanning can cause the skin to dry, wrinkle, and prematurely age. So if you want to be good to your skin, be sure to avoid overexposure and under exposure.

## Sleep Disorder: How can sunshine help you sleep better?

Sunlight can help you sleep better at night. When sunlight enters the retina of your eye, it triggers the pineal gland to convert sleep enhancing (melatonin) hormones to those that increase alertness (serotonin). Similarly, moderate exposure to sunlight has been found to effectively regulate these hormones and will help you get a better night's rest.

## Mental Health and fatigue: Can sunlight help you think better?

When the body's hormones are functioning optimally, sunlight causes the production melatonin to decrease and serotonin to increase. Not only is serotonin the chemical the brain uses to produce alertness, it also help create a feeling of happiness. That's why experts recommend waking up early so your can take full advantage of a day's worth of natural light.

## What are the benefits of adequate sunlight?

Human beings like plants need adequate sunlight. Sunshine is a powerful agent in fighting disease. It helps to relax tension, produce mental alertness, and improve the complexion. Physical fitness is increased when exercise is taken outdoors. Our homes

should be open to an abundance of sunlight. All rooms, especially sleeping rooms, should be well supplied with this gift of nature.

#### How does sunlight make a difference with multiple sclerosis?

"Multiple sclerosis (MS) is an extremely debilitating disease, and it is now thought that low levels of Vitamin can promote its onset. Likewise, research has shown that the severity of the disease can be decreased by sun exposure and Vitamin D. Numerous studies have also found the risk of death related MS is significantly reduced by moderate sunlight exposure, with some reporting as high as 76 percent reduction in early mortality risk.

#### What is the danger of not getting enough sunlight?

According to new research, adults who do not get enough of the "sunlight vitamin" are 26 percent more likely to die earlier.

#### What are the dangers of getting excessive Vitamin D through pills?

Supplementing your Vitamin D with a pill is not the best way to receive adequate amounts of this essential vitamin. Because Vitamin D is fat-soluble, excess amounts are stored in the body for later use and can lead to a condition known as hypocalcaemia, which is too much calcium in the blood. Symptoms of hypocalcaemia can include fatigue, depression, confusion, nausea, and constipation. For safe obtaining adequate amounts of Vitamin D, moderate exposure to sunlight is still you best option.

#### Is cow's milk a good source of vitamin D?

According to *Amazing Health Magazine*, Cow's milk is actually a poor source of Vitamin D. One quart of untreated milk contains roughly 50 to 80 units of Vitamin D. This is why the dairy industry has been adding Vitamin D to milk at a rate of 400 units

per quart since the 1930's. Oddly, research has shown that Vitamin D in enriched milk is not easily absorbed by the body.

#### How do you get the right light at the right time?

Researchers have found that sleeping several hours in nighttime darkness promotes a healthy blood level of melatonin, which can significantly suppress the growth and proliferation of breasts tumors. They also found that sleeping while exposed to light causes a dramatic drop in blood melatonin levels, setting the stage for growth and proliferation of breast cancer cells.

## What spiritual application can we draw from sunlight?

God is light and in Him is no darkness at all. (1 John 1:5) . . . We have seen that sunlight is essential to good health. However, could another type of light be essential for our spiritual well-being? Scientists believe that someday the sun will burn out. However, Jesus desires to give light now beyond that which is seen. He says, "I am the light of the world. He who follows me shall not walk in darkness but have the light of life" (John 8: 12, NKJV.)

Just as sunlight has powerful healing potential for our bodies, Jesus, the light of the world, is the best healing sunshine for our souls.

#### LESSON V

## **Health Principles on Temperance**

The principle of temperance is grounded in the creation account. God gives man the freedom of choice to choose between good and bad.

"And the Lord God commanded the man, 'You are free to eat from any tree in the garden; but you must not eat from the tree of the knowledge of good and evil, for when you eat of it you will surely die." Genesis 2:16, 17. *Life Application Study Bible*.

## Does God really mean what He says?

In the beginning, God gave Adam and Eve freedom to eat from the tree of life and almost every other fruit in the garden. But He warned that eating or touching the forbidden fruit of one tree would result in death. The tree of knowledge of good and evil stood in the midst of the garden as a choice between loyalty or disobedience. Sadly, these first humans ended up viewing this dangerous fruit as good for enhancing their wisdom."

They went against God's clear command and, in one bit, a tsunami of sin and heartache swept across this world. And even though this forbidden tree is no longer in this world, could there be other "forbidden fruits" today that zap our joy and rob us of our freedom?" *Amazing Facts Magazine*, p. 30.

Since there was sin, man has struggled with their temperance. Both with the overuse of that which is good and abstinence from that which is bad.

#### What is one of man's greatest struggles?

According to the book of *Seventh-day Adventist Believe*, "Drugs have saturated out society because they offer stimulation and release from pain. The Christian is surrounded with seductive invitations to use drugs. Even many innocent – appearing

popular beverages containing drugs: coffee, tea, and colas contain caffeine, and fruitflavored wine coolers contain alcohol. Research has shown that the milder gateway drugs tend to lead progressively to stronger mind-altering drugs." p.282

This book admonishes the blessing of temperate, drug free, stimulant free living. The wise Christian will abstain from all that is harmful, using in moderation only that which is good. Heathman and Tillotson define Temperance: Temperance is abstinence from all things practices that are harmful and judicious use of that which is good.

In the track <u>Healthful Living Series</u>, produced by Teach Services, Inc. a synonymous word for temperance is abstemiousness.

Abstemiousness means to avoid completely those things which are harmful and to use with discretion those which are good. To avoid overworking the digestive system, food should be eaten at the same time each day with four or five hours between meals.

Even one bite of food between meals will disrupt digestion.

Abstemiousness in diet is rewarded with mental and moral vigor; it also aids in the control of the passions. Over-eating is especially harmful to those who are [lethargic in disposition]; these should eat sparingly and take plenty of physical exercise.

The principle of temperance is a matter of stewardship, how we manage our holistic health in a balanced fashion. This requires a lot of discipline and self-control. Based on 1 John 3:4, "Everyone who sins breaks the law; in fact, sin is lawlessness." "It wasn't merely because man ate a piece of fruit, it was a decision to rebel against the goodness of His wisdom and instruction."

## Where are decisions really made?

The frontal lobe of the brain is the key to our rationale, moral and ethical decision-making. It is the part of the brain that defines our character, personality, and will. Essentially, the frontal lobe is the section of our brains that contains our spiritual nature. Because of this, Satan is constantly trying to destroy this part of the brain.

#### What happens when the frontal lobe malfunctions?

Experts have linked frontal lobe damage with schizophrenia, bipolar disorder, obsessive-compulsive disorder, depression, and numerous other mental illnesses. Some of the effects of frontal lobe damage can conclude:

- Impairment of moral principle
- Social impairment
- Lack of foresight
- Loss of abstract reasoning
- Diminished ability for math
- Lack of restraint (boasting, hostility, aggressiveness)
- Memory impairment (especially of recent events)
- Distractibility and restlessness
- Emotional instability
- Apathy (lack of initiative)
- And indifference to one's condition (happy go-lucky).

### What's the most common cause of frontal lobe damage?

The most common form of frontal lobe damage comes from unhealthy lifestyle choices. For example, one study discovered that obese women with high levels of C-reactive protein is associated with inflammation and is strongly linked to a sedimentary lifestyle. The frontal lobe is also very sensitive to the effect to toxic chemicals. For instance, alcohol, drugs, caffeine, and tobacco have all found to damage the frontal lobe.

#### In Genesis 3:1-6, what are some of the effects of eating the forbidden fruit?

- Man would eventually die.
- It was "pleasurable."
- It affected the thought process (man felt "shame" and guilt).

## How does alcohol affect our decision making process?

Alcohol use is responsible for millions of cases of disabling mental illness each year. One factor affects 100 of alcohol users: frontal lobe impairment.

The neurotransmitter responsible for halting an action or nerve impulse in the brain is known as gamma-aminobutyric acid (GABA). Alcohol blocks the action of GBA at the nerve junction, enabling you to do things your conscience wouldn't normally allow. This results is an increase of risky behaviors, aggression, and impulsivity...One study revealed that alcohol intoxication increases the risk of suicide by 90 times! Worse yet, alcohol can alter neuron DNA, thereby passing brain damage down from generation to generation...government studies show that 1 out of 10 drinkers will become an alcoholic. Isaiah says, woe to you who rise early in the morning to run after their drinks, who stay up late at night till they are inflamed with wine. Isaiah 5:11, *Life Application Study Bible*.

#### What about advocates that alcohol is good for the heart?

Contrary to numerous studies that indicate that alcohol is good for the heart, other studies show that alcohol is toxic to the heart muscle - the red grape! The skin of red grapes contains high levels of chemicals known as "flavonoids," which have been found to have health-promoting effects. In fact, the flavonoid quercetin is an extremely powerful antioxidant that has been shown to reduce heart disease risk ... studies have

shown that red grape juice has exactly the same heart benefits without the toxic side effects of the alcohol.

Alcohol consumption has become a dangerous epidemic in the United States. In a survey, almost half of Americans age 12 or older reported being current drinkers of alcohol – and estimated 109 million people.

Alcohol is responsible for up to 30 percent of the world wide incidence of esophageal cancer, liver cancer, liver cirrhosis, epileptic conditions, automobile accidents, and homicides... Alcohol consumption is likely to cause more than 60 different types of diseases and disabilities.

Alcohol consumption is involved in half of all murders, half of all violent crimes, one-third of all child abuse, one-third of all suicides, more than half of all traffic deaths, and a large portion of unwanted pregnancies, sexual assaults, and divorces! It is the world's most destructive drug and cost U.S taxpayers nearly \$200 billion a year.

Legal/illegal drug use is now a universal epidemic. What complicates the issue is that some drugs are legal with side effects and can lead to abuse and addiction. On the other hand, there are drugs that are illegal but sought for and used for recreational reasons, which result in major problems.

#### How do people get addicted?

Did you know that your brain is naturally wired for pleasure? This isn't a bad thing, because the pleasure circuit of the brain can help reinforce healthy behavior, such as exercising, reading, productive hobbies, etc. However, certain substances can take over this natural process and lead to addiction. Addiction is characterized by two distinct processes: tolerance and dependence.

- Tolerance means that the brain becomes accustomed to the pleasurable stimulation and demands increasing levels to achieve the same response.
- Dependence describes the adverse emotional and physical reaction that occurs after the pleasing stimulation is removed.

Research has shown that illicit drugs, such as cocaine and even many "legal" drugs can cause permanent structural changes in both cells and genetic material. Using an addictive drug can alter the brain cells to become more sensitive to other addictive substances. Thus, when new drugs are used, they create an even more intense pleasure response, leading to stronger future addictions.

Chemicals released in this runaway of pleasure response such as the protein dynorphin, actually depress the entire pleasure response system. Thus ordinary pleasurable experiences loose their appeal. Addictive drugs become the pleasure of choice, in all consuming desire.

#### What genetic damage do drugs have on children?

Due to genetic damage, children can inherit heightened sensitivity to addiction drugs. If you have great-grandparents, grandparents, or parents who abuse drugs, alcohol, tobacco, or any other kind of addictive drugs, you are at risk of forming strong addictions.

# What are the results of newborns childhood development after front brain damage?

- Does not respond to parental discipline.
- Seeks instant gratification
- Inadequate friendships

- Blames others
- Irresponsible
- Influenced by deviant kids
- Masturbates bisexual

Donna Green Goodman Lecture, October 27, 2009.

## What are some of the deadly illegal drugs?

Illegal drugs – such as heroin, cocaine, methamphetamines, etc. – have caused much disease and death in America. - *Amazing Facts Magazine*, p. 34

## What are some of the deadly legal drugs?

You might be surprised to learn that prescription drugs kill far more people every year than illegal drugs. In fact, one study showed that the fourth leading cause of death in America is the side effects of properly prescribed medication! Although any prescription drugs can alienate symptoms and help regulate body processes, they can be toxic to another bodily system or organ.

Near half (46 percent) of the 55,000 cases for primary prescription pain-relieving narcotic drugs like Demerol...for example acetaminophen, taken by millions of Americans take each year to relieve pain or bring down high body temperature can, if used unwisely, result in extensive liver damage. In fact, the overdose of acetaminophen is the leading cause of liver failure in America. Each year, more than 56,000 emergency room visits are attributable to overdose of this drug...the routine use of this drug almost doubles the risk of developing kidney cancer.

## What is the world's popular drug?

Today, caffeine is the world's most popular drug.

#### Is caffeine addictive?

Caffeine has been shown to satisfy all the criteria for the second phase of addiction – dependence. In fact, caffeine is most widely used dependence-creating substance in the world! Caffeine withdrawal can produce headaches, fatigue, irritability, and other adverse effects both physical and mental.

#### Can caffeine affect your judgment?

Since caffeine binds itself to receptors that inhibit certain impulses, the activity of stimulating impulses the activity of stimulating neurotransmitters is increased. This neurotransmitter imbalance can lead to mental illnesses caused by an increased amount of the neurotransmitter dopamine.

#### How does caffeine affect sleep?

The "homeostasis" describes the body's attempt to maintain balance and health.

Naturally, periods of stimulation should be accompanied with periods of adequate rest. In fact, the body has several defense mechanisms to help maintain optimal balance between stimulation and rest. However, caffeine removes these defense mechanisms and allows the body to continue in a state of increased stimulation – even while sleeping! Studies have shown that as little as 200mg of caffeine in the morning can impact sleep the following evening!

#### How does caffeine contribute to headaches?

Both routine caffeine use and withdrawals can trigger headaches, which is partially why it causes dependence; caffeine, especially in high doses, increase the amount of adenosine in the brain. High levels of adenosine cause blood vessels to widen excessively, a process that has been linked with aneurysms – defects in the wall of a blood vessel that have the potential to rupture.

#### What are some other adverse effects of caffeine consumption?

Caffeine may be a carcinogen contributing to the development of cancers of the kidney, breast, colon, pancreas, ovaries and bladder. Caffeine may increase the risk of low birth weight. Elevate blood pressure 3-5Hg; causes dangerous heart rhythms increase symptoms of PMS, cause heartburn. - Donna Green-Goodman

Despite of the scientific data that tobacco is harmful to the health, "why are people using tobacco?"

Tobacco companies realized that anything that can make the normally noxious process of inhaling smoke more pleasurable would also increase the strength of a cigarette addiction.

Cigarette smoke contains at least 600 added ingredients, including sugar, menthol, and ammonia. Sugar is added to enhance the taste and can account for as much as 10 percent of the total weight of the cigarette. Menthol is used to numb nerves that would normally convey a pain response from smoke inhalation. This additive is especially detrimental to new smokers as their lungs are especially sensitive to smoke. Ammonia is used to increase the PH of cigarette smoke, ensuring nicotine absorption to keep the smoker coming back for more... Despite being forced to pour millions of dollars into stop smoking campaigns, tobacco companies continue to spend millions more each year on advertising and marketing.

## What are the consequences of cigarette smoking?

Cigarette smoking is the chief avoidable cause of premature death in the United States. A report in JAMA of a 1985 survey shows a total of 314,574 deaths attributable to smoking, with a total of 3,648,676 years of potential life lost. These estimates were based on an average life expectancy. - JAMA, Jan. 6, 1989, vol., 261, no. 1.23. Healthman and Tillotson, p. 58.

What are some destructive behaviors that are as destructive as chemical dependency?

"Studies have also shown that certain behaviors, such as gambling, viewing pornography, shopping and watching TV can be just as destructive as any chemical dependency." *Amazing Facts Magazine*, p. 37.

#### What is the antidote for all addiction?

The tree of life was also in the midst of the garden" (Genesis 2:9 NKJV)...Just as the two trees provided a choice for Adam and Eve in the Garden, a similar choice is offered everyone today. We can choose true wisdom and life or we can chose deception, addiction and death.

When God offered His Son as a sacrifice on the cross, he provided the only antidote for the most deadly addiction of all time: the addiction of sin. The cross became a new tree of life and Jesus' perfect life the only healing fruit.

#### LESSON VI

## **Health Principles on Air**

The most vital element of life is air. Man's very existence is dependent on this life giving force based on the creation account of man's origin.

"The Lord God formed the man from the dust of the ground and breathed into his nostril the breath of life, and man became a living being." Genesis 2:7, *Life Application Study Bible*. It is the combination of breath and body that is equivalent to a living soul.

### What is life's first necessity?

- Air is life's first necessity. One may live for many days without food and for a few days without water, but for only a few moments without air.
- Air is the free blessing of heaven, circulated to electrify the whole system.
- Air, air, the precious boon of heaven, which all may have, will bless you with its invigorating influence if you will not refuse it entrance. Welcome it, cultivate a love for it and it will prove a precious soother of the nerves. The influence of pure, fresh air is to cause the blood to circulate healthful through the system. It refreshes the body and tends to render it strong and healthy while at the same time its influence is decidedly felt upon the mind, imparting a degree of composure and serenity. It excites the appetite and renders the digestion of food more perfect and induces sound, sweet sleep.

The Psalmist, David said, "Let everything that has breath praise the Lord." Psalm 150:6, Life *Application Study Bible*.

#### How important is air to the cell functions of the body?

• Every cell in the body utilizes oxygen. It is needed to "burn" foods to produce heat and energy. These cells are dependent on the oxygen supply available in the blood stream and tissue fluids - Healthman and Tillotson, 6.

What are some of the reasons why the blood cells may not be able to supply enough oxygen?

- Some reasons why the blood cells may not be able to supply enough oxygen to body cells include:
  - o Poor posture and breathing habits.
  - o Poorly ventilated rooms with pollutants in the air.
  - Clumping of red blood cells: cause include excess sugar (sugar polymers) and /or free fats (chylomicrons) in diet and use of alcoholic beverages waste and toxins in the blood stream.
- Every cell must receive a constant supply of oxygen. When you breathe stale
  polluted air, the supply of oxygen is insufficient to keep the cells strong and
  healthy. If oxygen is cut off entirely, cells die within a few minutes.

Fresh air should be breathed as freely indoors and outdoors. Open your windows, and if necessary, dress more warmly so that pure air can ventilate your home and your lungs. It takes abundant oxygen circulation throughout the body to maintain good health" Healthful *Living Series, Teach Services Inc.* 

## How much of nature depends upon pure air?

- All nature depends upon pure air and works to produce it. While men and
  animals are taking oxygen from the air and giving off carbon dioxide, plants
  are using the carbon dioxide and giving off oxygen. When man lives close to
  nature, balance is maintained.
- All living things are dependent on oxygen. Plants not only use carbon dioxide
  from the air as food, but they also use oxygen, as do animals and humans. Air
  is admirably adopted to the needs of human beings, as well as to the needs of
  animals and plants Heathman and Tollotson, 62.

## What is the chemical make up of air?

Air is a mixture of many gases, but is composed mostly of nitrogen and oxygen –
 about four-fifths nitrogen and one-fifth oxygen. Other gases normally as pure as
 air are only found in minute qualities, except carbon dioxide and water vapor.

## Why is air such a heavy subject?

• "Oxygen is our body's most important physical need. Although air is composed of only 20 percent oxygen, each inhalation brings life-sustaining gas into the lungs. Oxygen then diffuses into the bloodstream, where it is transported all over the body via your red blood cells. It is mostly used to facilitate reactions involving the body's man energy source: glucose. Without oxygen this energy source would be useless." *Amazing Facts Magazine*, p. 38.

#### Why is the reaction between glucose and oxygen like a fire within?

The reaction between glucose and oxygen can be compared to a burning candle...

If oxygen levels get too low in the body, your "lights" will go "out" (lose consciousness). Just like a burning candle, your body also produces smoke as a by-product of combustion. You cannot see this smoke, but every time you exhale, carbon dioxide and water vapors are released into the air.

#### Is there anything that can be done to improve breathing?

• Ideally, breathing should expand the lungs through lowering the diaphragm (a muscle separating the lungs from the abdominal organs). This can be accomplished by relaxing the abdominal muscles during inhalation. This idea is to expand the lower lung area, resulting in increased lung function, "deeper breathing," and a more efficient oxygen/carbon dioxide exchange. In fact, the practice of deep breathing is one of the simplest ways of preventing certain types of pneumonia.

#### What are the benefits of deep breathing?

- Deep breathing can help relieve, headaches, backaches, stomach aches, and sleeplessness. It allows blood pressure to return to normal and releases natural mood enhancers (endorphins) into the bloodstream. Use deep breathing... It's one of the best techniques for stress relief.
- The right lung has three separate compartments while the left lung has only two. The average person takes 21, 600 breaths per day, using about 88 pounds of oxygen. Our brain uses 25 percent of all the oxygen we inhale.

#### Why is it necessary to have your home property ventilated?

- The quality of outside air is far superior to the air found circulating in the home.

  In fact, one study suggests that indoor air can be up to five times more polluted than outdoor air...This combination of pollution exposure and duration of exposure makes indoor air quality a serious health issue. High levels of particulate matter are responsible for a host of medical conditions.
- "The harmful effects of living in closed, ill vented rooms are these:
  - o The system becomes weak and unhealthy.
  - o The circulation is depressed.
  - The blood moves sluggishly through the system because it is not purified and vitalized by pure, invigorating air of heaven.
  - The mind become depressed and gloomy and fevers and other diseases are liable to be generated.

#### What are some of the remedies for poor ventilation?

- "The simple remedy is opening the windows and letting fresh air circulate through the house. But remember, short, sporadic breathing is not healthy to you or your house so allow your home to take deep breaths! In heavily polluted environments, such as cities, experts recommend airing out our house at night because smog levels fall significantly after sunset.
- Numerous commercial in-home ionizers are on the market, but buyers beware, some have been found to produce ozone and undesirable atmospheric free radicals. The safest source is nature; potted plants naturally increase oxygen and levels of negative ions while reducing carbon dioxide.

# Is there any scientific research that proves that there is a connection between breathing air, health and longevity?

- Cardiovascular Disease: Is air quality related to heart disease?
- A recent study conducted in Italy found that the incident of blood clots was
  higher among people to exposed levels of particulate matter. This translates into
  an increased risk of death from pulmonary embolism, stroke, and even heart
  attack.
- Another study found reducing the amount of indoor air pollution through HEPA filtration improved micro-vascular blood flow by an average of 8 percent... One study found up to a 30 percent increase among those with heart disease who lived closest to areas of increased pollution (highway, bus routes, etc.).

#### Can polluted air affect cholesterol?

The ultra-fine particles found in smog actually decrease levels of HDL, the good cholesterol. In one study, mice exposed to these microscopic particles had a 55 percent increase in atherosclerotic plaque development (hardening of the arteries.
 Researchers also point out that these microscopic articles are so small they cannot be captured by air filtration.

## Cancer: smoking causes cancer, but can polluted air do the same?

World wide, indoor air pollution is thought to cause more than 1.5 percent of the approximately 1 million lung cancer deaths per year.
 It is also estimated that radon gas affects one out of every 15 homes in

leading cause of lung cancer in the United States – up to 20,000 lung cancer

America . . . The American Lung Cancer Association rates radon as the second

deaths per year. Other indoor contaminates such as formaldehyde (found in pressed wood-products, paneling, etc.) are estimated to contribute about 6, 500 additional lung cancer deaths each year.

#### Mental Health: How does air affect your brain?

Keeping brain cells healthy is vital to combating mental health problems such as
depression and anxiety, while improving overall mental performance. For this the
brain needs constant supply of oxygen. The problem is best alienated through
adequate ventilation.

Numerous other particles found in air, such as old spores, dust mites, and even airborne bacteria can cause respiratory illness. . . Some researchers have even identified mold spores as the cause in most chronic sinus infections affecting 37 million Americans each year.

#### Can breathing bad air actually cause asthma?

Breathing air contaminated by household chemical compounds (cleaners,
polishes, etc.) might lead to the onset of asthma. Researchers found that young
children exposed to higher levels of these chemicals were significantly more
likely to develop respiratory problems, such as asthma, later in life.

#### Lung disease/illness: WHO cares about bad air?

The World Health Organization (WHO) estimates that globally, almost 700,000 of the 2.7 million deaths from lung disease per year are caused by indoor pollution. The WHO also estimates that exposure to indoor air pollution almost doubles the risk of pneumonia.

#### With all the negative information on smoking, why has smoking not decreased?

 The U.S. Center for Disease Control has labeled smoking as the single most preventable cause of premature death in America, claiming the lives of more than 400,000 annually. Smoking is believed to cut off, on average, 21 years of life.

Globally, the death toll is worse, claiming the lives of more than one out of three men age 35-69.

#### What is the chemical makeup of cigarette smoke?

- Smoking not only causes cancer but numerous other diseases due to harmful
  chemicals found in cigarette smoke. Indeed, cigarette smoke contains more than
  4,000 different chemicals, and many of these are know to cause cancer:
  - o formaldehyde, which is commonly used to preserve dead bodies.
  - o arsenic, which is used to kill rats.
  - o Acetone, which is used to remove nail polish.
  - o Carbon monoxide, which also comes out of your car's exhaust pipe.
  - o And hydrogen cyanide, a poison used to execute people in gas chambers.

#### Why is it so hard to quit the habit of smoking?

Nicotine has been found to excessively increase serotonin levels which cause anxiety... Researchers have linked the daily quantity of cigarettes smoke and an increase in anxiety disorders. When a person stops smoking, serotonin levels drop – a process that might lead to depression.

Unfortunately, nicotine withdrawal can also cause anxiety. Indeed, quitting smoking can temporarily make you totally miserable.

#### What are the eight suggested steps to prevent depression after you stop smoking?

The Weimar Center of Health and Education suggest that following steps to help improve mood and combat depression:

- 1. Eat a plant-based diet which helps to raise serotonin levels.
- Maximize serotonin levels by eating soy beans, pumpkin seeds, sesame seeds, almonds, and beans.
- 3. Get 30 minutes of exposure to bright sunlight in the morning or take 15 minute walks between 9 am and 3pm daily.
- 4. Walk briskly for one hour, six days a week.
- 5. Eat between two or three tablespoons of freshly ground flasseed daily.
- 6. Eat between one-fourth and a half a cup of English walnuts at breakfast and lunch.
- 7. Take a B-complex vitamin with your noon or evening meal.
- 8. Dismiss negative thoughts and speak nothing negative of others.

#### If you want to quit smoking, will it be easier if you taper off?

The easiest way is to just quit. Studies have shown that those who attempt to "taper off" cigarettes have more prolonged nicotine withdrawal symptoms than those who quit "cold turkey". . . Studies have shown that almost as soon as you quit, the body starts to heal. And after just a few years, the risk of related diseases, such as lung cancer actually approaches the same risks faced by non-smokers.

#### LESSON VII

#### What is the first reference to rest in the Bible?

"We find that the first reference to sleep in the Bible is of a deep and creative sleep. When Adam awoke, he was refreshed; ultimately the future of humanity can be traced back to this first nap. The reality was that even in a perfect world, God designed that a person would need to rest." *Amazing Facts Magazine*, p. 46.

The first biblical account of rest originated with God.

"So the Lord God caused the man to fall into a deep sleep; and while he was sleeping, he took one of the man's ribs and closed up the place with flesh. Then the Lord God made a woman from the rib he had taken out of the man, and brought her to the man." Genesis 2:21, 22.

## What activities are there in sleeping?

"Sleep is much more than just a passive experience for your body. Although we might be resting, our body is engaged in another type of activity, a process that will bring restoration and healing to frazzled organs, nerves and body tissues." *Amazing Facts Magazine*, p. 46.

## What are the five cycles of sleep?

Stage 1: If you have ever driven a car while drowsy, you are well acquainted with this stage of very light sleep. The startle that often awakes a drowsy driver is an indication of having briefly entered this stage.

Stages 2, 3 and 4: In these stages, brain activity decrease (but does not stop) deep sleep begins and delta waves begin and intensify.

Stage 5: This sleep is characterized by rapid eye movement (REM), dreaming, arm and leg paralysis (so we don't act out our dreams) and increased heart rate and blood pressure. The brain wave pattern during REM is close to that of being awake. It is theorized that REM is a period of information processing, storing, and the improvement of brain efficiency.

#### Why is it necessary to put an emphasis on adequate rest?

An estimated 60 million Americans have trouble sleeping.

#### What are some of the reasons why people have trouble sleeping?

Today, because of artificial lights, TV, the internet, and the caffeine craze, people are sleeping less than their great grandparents did. This figure might not be startling itself but considering that proper sleep is one of the most important elements in the process of healing, America is also in for a disease-ridden wake-up call..

"Many do not get enough rest simply because they do not have a regular time for it. The body has a built in clock, which is "set" by regularity of sleeping hours and meal times. Generally, two hours of sleep before midnight equals four hours after." - *Healthy Living Series*, Teach Service Inc.

## How does sleep deprivation affect highway safety?

Did you know that just one hour of sleep deprivation increases the number of highway accidents by eight percent, but that an hour of extra sleep decreases them by eight percent? It's true, it happens every year when daylight savings time changes.

This is because driving effectiveness after you've been awake for 18 hours is about the same as driving after you have had two alcohol drinks (1 drink = 5 ounces of wine). When you have been awake for 24 hours, your driving effectiveness is the

equivalent of driving under the influence of four to six drinks! Optimum performance comes with eight hours of restful sleep.

## What role does melatonin play in sleep?

Melatonin is a hormone produced by the pineal gland in response to darkness.

One of the most notable functions of this hormone is that antioxidant capabilities,
providing protection from dangerous free radicals inside the cells. This helps to prevent
damage to the cells most vital component: DNA. Damage to DNA has been linked to a
host of diseases, such as cancer.

## What role does the hormone adenosine play in the sleeping process?

The hormone adenosine induces relaxation to help us sleep, but caffeine blocks the communication between adenosine and the brain, keeping you "awake" and shutting off the body's defense against exhaustion – related injury.

Is there any evidence by researchers that there is a connection between rest, health and longevity?

## Cardiovascular Disease: does proper rest contribute to your heart health?

In a study of American nurses, sleep duration was shown to have significant impact on heart disease. Compared to those sleeping about eight hours a night, those sleeping less than five hours had a 39 percent greater risk of developing heart disease. Those sleeping six hours had an 18 percent increase. Women who slept over nine hours increased their risk by 37 percent and increased their heart attack risk by 45 percent.

Another study found that participants who slept less than 6.5 hours a night had 50 percent higher levels of insulin compared to those who slept between 7.5 and 8.5 hours

per night. High insulin levels can result in weight gain, high blood pressure and increased cholesterol – all three contribute to cardiovascular disease.

#### Cancer: Can your cancer be increase due to lack of sleep?

One major factor in cancer is the health of the immune system. A poorly functioning immune system is more prone to pre-cancerous cells, giving them the chance to multiply. Studies show that decrease in sleep duration does, in fact, impair immune function. Some evidence suggests that losing as much as three hours of sleep can decrease immune function by 50 percent.

## Diabetes: How does proper sleep affect your risk for diabetes?

An additional study found that sleeping nine or more hours a night increases the risk of diabetes by 29 percent. The study also pointed out that those sleeping less than five hours had significantly higher levels of chronic disease, and both the under – and over – sleepers had increased body weight.

A German study. . . conducted over a period of ten years found that men who had troubled sleep patterns had a 60 percent increase risk of developing diabetes. For women, the results were even more shocking; 98 percent.

## **Obesity: Canto little sleep put on the pounds?**

Inadequate sleep has a profound effect on the risk for obesity. In a study of American women, compared to those who slept seven hours a night, women who slept less than five hours had a much greater risk of weight gain and obesity - up to 58 percent! The study concluded that those who sleep seven to eight hours per night had the lowest risk for major weight gain.

In one study, those sleeping less than five hours a night had lower levels of peptin, an appetite – suppressing hormone. To make matters worse, they were also found to have increased levels of a hormone that stimulates the appetite – a total of 30 percent increase in hunger – promoting hormone levels!.

#### **Mental Health: Does sleep affect my brain?**

Increased anxiety, confusion, and even mental illness have been attributed to inadequate sleep. One study that looked at the sleeping patterns of nearly 8,000 people during the course of a year found that inadequate sleep significantly increased the risk of depression. The study also found that over-sleeping significantly increased the odds of mental illness.

## What are the seven simple steps to a restful night's sleep?

- 1. Wake up with the sun: Sunlight helps to increase levels of alertness, enhancing hormones such as serotinin.
- 2. Eat a balanced diet rich in plant-based complex carbohydrates and tryptophan: Tryptophan, an amino acid, is necessary for the construction of numerous hormones, including serotonin and melantonin. Carbohydrates help tryptophan enter the brain. Tryptophan rich foods include tofu, pumpkin seeds, gluten foods, sesame seeds, almonds, black walnuts, and black-eyed peas.
- 3. Find time for moderate physical exercise: Exercise helps increase levels of certain hormones that have been found to enhance sleep at night.
- 4. Avoid sleep depriving substances (alcohol, caffeine, nicotine, etc.): Alcohol robs the body of deep sleep while caffeine interferes with sleep due to its stimulating properties. Tobacco users miss out on deeper sleep due to nicotine

- withdraw all during the night. Antidepressants and even sleeping pills can also decrease levels of REM sleep.
- 5. Have an established, early bedtime: Experts recommend going to sleep at least two and a half hours before midnight. A regular pattern of sleep is also important.
- 6. Sleep in the dark: To optimize melatonin, it is important to sleep in total darkness.

  Exposure to bright light can lower melantonin levels.
- 7. Leave your worries behind: Studies show that emotional stress can cause poor quality sleep.

## What is the second type of rest mentioned in the creation account?

Regarding the conclusion of the creation week the Bible says, "And on the seventh day God ended his work which he had made; and he rested on the seventh day from all his work which he had made. And God blessed the seventh day, and sanctified it: because that in it he had rested from all his work which God created and made." Genesis 2:2,3

The *Amazing Facts Magazine* elaborates, "Amazingly! God actually took time off. But unlike us, God did not rest because he was tired. Rather, according to the Bible, He reserved and sanctified the 24 hours at the end of the week for spiritual and physical refreshment. The first seventh day must have been very special to God and humanity. It was a way to spend time together, away from the cares of the week. In fact, when God spoke to Moses thousands of years later, He reminded him of the ongoing importance of the seventh day of the week:

"Remember the Sabbath day, to keep it holy. Six days shalt thou labour, and do all thy work: But the seventh day is the Sabbath of the LORD thy God: in it thou shalt not do any work, thou, nor thy son, nor thy daughter, thy manservant, nor thy maidservant, nor thy cattle, nor thy stranger that is within thy gates: For in six days the LORD made heaven and earth, the sea, and all that in them is, and rested the seventh day: wherefore the LORD blessed the Sabbath day, and hallowed it." Exodus 20:8-11(KJV)

In Genesis 2:3, 4, Dr. Richard Davidson states the Hebrew of "rest" was shabat, which literally meant that god "ceased working, paused, rested." God ceased from his work, he paused and rested... As the fourth commandment, Exodus 20:8-11, makes explicit, God's rest was to serve as a model for our own. Exodus 20 further enriches the meaning of God's rest by employing another term, "nuach," which connotes not only cessation from toil but tranquility, serenity, peace and repose." Such a rest God gives as a gift to the human race." *A Love Song for The Sabbath*, Richard M. Davidson, p. 27, 28.

Davidson further states it was not just physical rest but it was also spiritual rest. Here the Hebrew verb "adash" is translated as "hallowed (RSV), "sanctified" (NASB, KJV), "declared it holy" (TLB), and "made it holy (NEB, NAB, NIV). The basic idea behind the verb is to separate or set it apart, for a special use.

## Does the Sabbath serve a dual purpose?

Of course, the Sabbath involves spiritual rest, but could there be physical benefits from a weekly day of rest?

# What adverse mental problems did France encounter by changing the seventh day cycle?

"France once changed the weekly cycle to what they thought was a more "logical" decimal-based system, know as the Republican Calendar. New months were invented and a 10-day week was instituted. However, this attempt actually filled up the country's mental institution and was quickly abandoned." *Amazing Facts Magazine*, p. 50.

## Is there a "connection" between weekly rest and health?

Scientists don't know why the seventh-day cycle is so ingrained in cultures around the world. Yet research has shown that we have an internal biological seven-day cycle – called circaseptan rhythm. For example, after an organ transplant, the rejection rate is higher for the transplanted organ on the seventh and fourteenth day following the operation.

#### Cardiovascular Health: Can weekly rest improve health?

The preventative and restorative qualities of a weekly day of rest might reduce the risk of heart disease. There are certain risk factors for heart disease that are directly related to mental and physical stress. One risk factor is increased levels of uric acid in the blood which are increased after periods of physical exertion.

Another risk factor is an increase in the blood levels of fibrinogen, which facilitates the formation of blood clots . . . found to be increased due to difficult mental problem solving and periods of mental crises. It has also been found to naturally peak on a seventh day cycle.

#### How does a weekly day of rest reduce the risk of heart disease?

Studies show that people who keep Saturday as their weekly day of rest show dramatic decrease in the rates of coronary artery disease.

#### What is the best reason for a weekly day of rest?

After a long week, we all need a little physical 're-creation'. Yet far exceeding all other reasons for a weekly Sabbath is that God told us to keep the seventh day holy!

Before sin, we see that there was no need for physical recovery from a draining week of labor. Yet God sanctioned the seventh day anyway as a time of special communion with His creation. Thus, the Sabbath rest is most important as a day of optimal spiritual recovery.

Do you have heavy burdens, guilt, fear or sorrows? Or are you simply looking for something better in life? There is a way of life that offers hope, happiness, and healing.

Jesus said, 'Come unto me, all ye that labour and are heavy laden, and I will give you rest.' (Matthew 11:28).

Isaiah talks about the restoration of a new heaven and new earth. He writes, "for as the new heavens and new earth which I will make shall remain before me," says the Lord, so shall your descendants and your name shall remain. And it shall come to pass that from one new moon to another, and from one Sabbath to another, all flesh shall come to worship me," says the Lord (Isaiah 66:22, 23, NKJV).

Amazing Fact Magazine states, "the Bible is full of examples of those who remembered God's fourth commandment, reaping the benefits of both physical and spiritual rest: Moses, King David, the Apostles, and Jesus Christ!" Amazing Facts Magazine, p. 51.

## HEALTH SURVEY QUESTIONNAIRE

Directions: Read the following questions and circle the answer that best reflects your opinion.

1.	People should follow the biblical principles of health.
	_Strongly Agree;Agree;Neither Agree nor disagree;Disagree;Strongly
Di	sagree
2.	The original biblical diet of fruits, vegetables, nuts and grains is the healthiest and most nutritious diet.
	_Strongly Agree;Agree;Neither Agree nor disagree;Disagree;Strongly
DΊ	sagree
3.	People should still follow God's Old Testament distinction between what animals should and should not be eaten.
	_Strongly Agree;Agree;Neither Agree nor disagree;Disagree;Strongly
Di	sagree
4.	Washing, cleaning, prayer over and cooking unclean meats makes them clean and biblically permissible to eat.
	_Strongly Agree;Agree;Neither Agree nor disagree;Disagree;Strongly
Di	sagree
5.	Eating the fat and blood of animals is harmful to the body
	_Strongly Agree;Agree;Neither Agree nor disagree;Disagree;Strongly
IJΙ	sagree

6.	Good health begins with a nutritious breakfast.
	_Strongly Agree;Agree;Neither Agree nor disagree;Disagree;Strongly
Di	sagree
7.	Exercise is important to a healthy mind and body.
	_Strongly Agree;Agree;Neither Agree nor disagree;Disagree;Strongly
Di	sagree
8.	People should drink water more than any other liquid.
	_Strongly Agree;Agree;Neither Agree nor disagree;Disagree;Strongly sagree
9.	The body daily requires $8 - 10$ glasses of water.
	_Strongly Agree;Agree;Neither Agree nor disagree;Disagree;Strongly
Di	sagree
10	. Exposure to sunlight improves mental health.
	_Strongly Agree;Agree;Neither Agree nor disagree;Disagree;Strongly sagree
11	. Exposure to sunlight improves physical health.
	Strongly Agree;Agree;Neither Agree nor disagree;Disagree;Strongly
Di	sagree
12	. Temperance should be applied to all health principles.
	_Strongly Agree;Agree;Neither Agree nor disagree;Disagree;Strongly
Di	sagree
13	. Living in close, ill-ventilated rooms is harmful to the body.
	_Strongly Agree;Agree;Neither Agree nor disagree;Disagree;Strongly
Di	sagree

14. Rest restores, inv	14. Rest restores, invigorates, and strengthens the body.						
Strongly Agree; _ Disagree.	Agree;	_Neither Agree nor disagree;	_Disagree;	_Strongly			
15. Humans need a d	ay of spiritual	rest (Sabbath).					
Strongly Agree; _ Disagree	Agree;	_Neither Agree nor disagree;	_Disagree;	_Strongly			
16. For optional heal	th, a person ne	eeds at least eight hours of rest ea	ach day.				
Strongly Agree; _ Disagree	Agree;	_Neither Agree nor disagree;	_Disagree;	_Strongly			
17. Stimulants such a	as coffee and c	caffeinated foods harm the body.					
Strongly Agree; _ Disagree	Agree;	_Neither Agree nor disagree;	_Disagree;	_Strongly			
18. A person's diet a:	ffects his/her	mind.					
Strongly Agree; _ Disagree	Agree;	_Neither Agree nor disagree;	_Disagree;	_Strongly			
19. Proper diet can pr	revent lifestyl	e diseases.					
Strongly Agree; _ Disagree	Agree;	_Neither Agree nor disagree;	_Disagree;	_Strongly			
20. A person's diet a	ffects his/her	spirituality.					
Strongly Agree; _ Disagree.	Agree;	_Neither Agree nor disagree;	_Disagree;	_Strongly			

# **Health Survey Results**

## **Bible Study Questionnaire Pre-Test/Post Results**

Key: SA= Strongly Agree; A = Agree; NAD = Neither Agree or Disagree; D= Disagree; SD - Strongly Disagree.

Questions	SA	A	NAD	D	SD
People should follow the biblical principles of health.	5	4	3	2	1
2. The original biblical diet of fruits, vegetables, nuts and grains is the healthiest and most nutritious diet.	5	4	3	2	1
3. People should still follow God's Old Testament distinction between what animals should and should not be eaten.	5	4	3	2	1
4. Washing, cleaning, prayer over and cooking unclean meats makes them clean and biblically permissible to eat.	5	4	3	2	1
5. Eating the fat and blood of animals is harmful to the body.	5	4	3	2	1
6. Good health begins with a nutritious breakfast.	5	4	3	2	1
7. Exercise is important to a healthy mind and body.	5	4	3	2	1
8. People should drink water more than any other liquid.	5	4	3	2	1
9. The body daily requires 8-10 glasses of water.	5	4	3	2	1
10. Exposure to sunlight improves mental health.	5	4	3	2	1
11. Exposure to sunlight improves physical health.	5	4	3	2	1

Questions	SA	A	NAD	D	SD
12. Temperance should be applied to all health principles.		4	3	2	1
13. Living in close, ill-ventilated rooms is harmful to the body.	5	4	3	2	1
14. Rest restores, invigorates, and strengthens the body.	5	4	3	2	1
15. Humans need a day of spiritual rest (Sabbath).	5	4	3	2	1
16. For optional health, a person needs at least eight hours of rest each day.	5		3	2	1
17. Stimulates such as coffee and caffeinated foods harm the body.	5	4	3	2	1
18. A person's diet affects his/her mind.	5	4	3	2	1
19. Proper diet can prevent lifestyle diseases.	5	4	3	2	1
20. A person's diet affects his/her spirituality.	5	4	3	2	1
Gender: Male or Female	<b>Age Range:</b> Less than 18; 18-30; 3-45; 46-65; 66 & older				
Religious Status: Adventist or Non-Adventist	ntist Have you been baptized: Yes or I				or No

#### PRE AND POST TEST DATA

### **Health Survey Results**

#### **Question 1:** People should follow the biblical principles of health.

		Post Test			
		Agree	Strongly Agree		
Pre Test	Agree	2	3		
	Strongly Agree	0	18		

Using McNemar's Exact Statistical test for nominal data, there is no evidence of a significant difference between Pre and Post test results at the 0.05 significance level. (The p-value is 0.25 where the p-value the probability of getting this result by chance alone. Hence, no evidence that the results of the two tests differ).

Question 2: The original biblical diet of fruits, vegetables, nuts and grains is the most healthy and nutritious diet.

		Post Test			
		Agree	Strongly Agree		
Pre Test	Agree	1	3		
	Strongly Agree	1	18		

Using McNemar's Exact Statistical test for nominal data, there is no evidence of a significant difference between Pre and Post test results at the 0.05 significance level. (The p-value is 0.6250 where the p-value the probability of getting this result by chance alone. Hence, no evidence that the results of the two tests differ).

Question 3: People should still follow God's Old Testament distinction between what animals should and should not be eaten.

		Post Test				
		Strongly Disagree	Disagree	Neither Agree nor Disagree	Agree	Strongly Agree
Pre Test	Strongly Disagree	0	0	0	0	0
	Disagree	0	1	0	0	0
	Neither	0	0	0	0	0
	Agree	0	0	0	2	3
	Strongly Agree	0	0	0	3	13

### 1 Missing Value

Using the Sign test for ordinal data, there is no evidence of a significant difference between Pre and Post test results at the 0.05 significance level. (The p-value is 1.00 where the p-value the probability of getting this result by chance alone. Hence, no evidence that the results of the two tests differ).

Question 4: Washing, cleaning, prayer over and cooking unclean meats makes them clean and biblically permissible to eat.

				Post Test		
		Strongly Disagree	Disagree	Neither Agree nor Disagree	Agree	Strongly Agree
Pre Test	Strongly Disagree	11	0	0	0	0
	Disagree	1	1	0	0	0
	Neither	1	1	0	0	1
	Agree	0	0	0	0	1
	Strongly Agree	3	2	0	0	0

1 Missing Value

Using the Sign test for ordinal data, there is no evidence of a significant difference between Pre and Post test results at the 0.05 significance level. (The p-value is 0.1054 where the p-value the probability of getting this result by chance alone. Hence, no evidence that the results of the two tests differ).

Question 5: Eating the fat and blood of animals is harmful to the body.

				Post Test		
		Strongly Disagree	Disagree	Neither Agree nor Disagree	Agree	Strongly Agree
Pre Test	Strongly Disagree	0	0	0	1	1
	Disagree	1	0	0	0	0
	Neither	0	0	0	0	1
	Agree	0	0	1	1	1
	Strongly Agree	1	0	0	1	12

2 Missing Values

Using the Sign test for ordinal data, there is no evidence of a significant difference between Pre and Post test results at the 0.05 significance level. (The p-value is 1.00 where the p-value the probability of getting this result by chance alone. Hence, no evidence that the results of the two tests differ).

Question 6: Good health begins with a nutritious breakfast.

		Post Test				
		Neither Agree nor Disagree	Agree	Strongly Agree		
Pre Test	Neither	0	0	1		
	Agree	0	1	2		
	Strongly Agree	1	3	15		

Using the Sign test for ordinal data, there is no evidence of a significant difference between Pre and Post test results at the 0.05 significance level. (The p-value is 1.00 where the p-value the probability of getting this result by chance alone. Hence, no evidence that the results of the two tests differ).

Question 7: Exercise is important to a healthy mind and body.

		Post Test			
		Agree	Strongly Agree		
Pre Test	Agree	1	0		
	Strongly Agree	2	19		
	1 Missing Value				

Using McNemar's Exact Statistical test for nominal data, there is no evidence of a significant difference between Pre and Post test results at the 0.05 significance level. (The p-value is 0.500 where the p-value the probability of getting this result by chance alone. Hence, no evidence that the results of the two tests differ.)

Question 8: People should drink water more than any other liquid.

Post Test Strongly Disagree Neither Agree Strongly Disagree Agree Agree nor Disagree 0 0 0 0 1 Pre Test Strongly Disagree 0 0 0 0 0 Disagree Neither 0 0 0 0 0 Agree 0 0 0 0 1 0 0 1 3 17 Strongly Agree

Using the Sign test for ordinal data, there is no evidence of a significant difference between Pre and Post test results at the 0.05 significance level. (The p-value is 0.6875 where the p-value the probability of getting this result by chance alone. Hence, no evidence that the results of the two tests differ).

Question 9: The body daily requires 8-10 glasses of water.

		Post Test				
		Strongly Disagree	Disagree	Neither Agree nor Disagree	Agree	Strongly Agree
Pre Test	Strongly Disagree	0	0	0	1	0
	Disagree	0	0	0	0	0
	Neither	0	0	0	1	0
	Agree	0	0	0	2	1
	Strongly Agree	0	0	0	2	16

Using the Sign test for ordinal data, there is no evidence of a significant difference between Pre and Post test results at the 0.05 significance level. (The p-value is 1.00 where the p-value the

ability of getting this result by chance alone. Hence, no evidence that the results of the two tests differ).

**Question 10: Exposure to sunlight improves mental.** 

		Post Test				
		Strongly Disagree	Disagree	Neither Agree nor Disagree	Agree	Strongly Agree
Pre Test	Strongly Disagree	0	0	1	0	0
	Disagree	0	0	1	0	0
	Neither	0	0	2	0	4
	Agree	0	0	0	4	1
	Strongly Agree	0	0	1	1	8

Using the Sign test for ordinal data, there is no evidence of a significant difference between Pre and Post test results at the 0.05 significance level. (The p-value is 0.1797 where the p-value the probability of getting this result by chance alone. Hence, no evidence that the results of the two tests differ).

Question 11: Exposure to sunlight improves physical health.

			Post Test	
		Neither Agree nor Disagree	Agree	Strongly Agree
Pre Test	Neither	3	1	2
	Agree	0	5	3
	Strongly Agree	0	1	7
		1 Missing Va	lue	<u>,                                    </u>

Using the Sign test for ordinal data, there is no evidence of a significant difference between Pre and Post test results at the 0.05 significance level. (The p-value is 0.1250 where the p-value the

probability of getting this result by chance alone. Hence, no evidence that the results of the two tests differ).

Question 12: Temperance should be applied to all health principles.

		Post Test				
		Strongly Disagree	Disagree	Neither Agree nor Disagree	Agree	Strongly Agree
Pre Test	Strongly Disagree	0	0	0	0	0
	Disagree	0	0	0	0	0
	Neither	1	0	1	0	1
	Agree	0	0	0	3	2
	Strongly Agree	0	0	0	1	12

2 Missing Values

Using the Sign test for ordinal data, there is no evidence of a significant difference between Pre and Post test results at the 0.05 significance level. (The p-value is 1.00 where the p-value the probability of getting this result by chance alone. Hence, no evidence that the results of the two tests differ).

Question 13: Living in close, ill-ventilated rooms is harmful to the body.

				Post Test		
		Strongly Disagree	Disagree	Neither Agree nor Disagree	Agree	Strongly Agree
Pre Test	Strongly Disagree	0	0	0	0	0
	Disagree	0	0	0	0	1
	Neither	0	0	1	2	0
	Agree	0	0	0	2	2
	Strongly Agree	1	0	1	3	10

Using the Sign test for ordinal data, there is no evidence of a significant difference between Pre and Post test results at the 0.05 significance level. (The p-value is 1.00 where the p-value the probability of getting this result by chance alone. Hence, no evidence that the results of the two tests differ).

Question 14: Rest restores, invigorates, and strengthens the body.

				Post Test		
		Strongly Disagree	Disagree	Neither Agree nor Disagree	Agree	Strongly Agree
Pre Test	Strongly Disagree	0	0	0	0	0
	Disagree	0	0	0	0	0
	Neither	0	0	0	0	1
	Agree	0	0	0	2	2
	Strongly Agree	0	0	0	1	16

1 Missing Value

Using the Sign test for ordinal data, there is no evidence of a significant difference between Pre and Post test results at the 0.05 significance level. (The p-value is 0.6250 where the p-value the probability of getting this result by chance alone. Hence, no evidence that the results of the two tests differ).

Question 15: Humans need a day of rest (Sabbath).

Pre Test Agree Strongly Agree

Pre Test Agree 1 2

Strongly Agree 1 19

Using McNemar's Exact Statistical test for nominal data, there is no evidence of a significant difference between Pre and Post test results at the 0.05 significance level. (The p-value is 1.00 where the p-value the probability of getting this result by chance alone. Hence, no evidence that the results of the two tests differ).

Question 16: For optimal health, a person needs at least 8 hours of rest each day.

				Post Test		
		Strongly Disagree	Disagree	Neither Agree nor Disagree	Agree	Strongly Agree
Pre Test	Strongly Disagree	0	0	0	0	0
	Disagree	0	0	0	2	0
	Neither	0	0	0	0	0
	Agree	0	0	0	2	2
	Strongly Agree	0 Missing Vol	0	0	2	12

3 Missing Values

Using the Sign test for ordinal data, there is no evidence of a significant difference between Pre and Post test results at the 0.05 significance level. (The p-value is 0.6875 where the p-value the probability of getting this result by chance alone. Hence, no evidence that the results of the two tests differ).

Question 17: Stimulates such as coffee and caffeinated foods harm the body.

				Post Test		
		Strongly Disagree	Disagree	Neither Agree nor Disagree	Agree	Strongly Agree
Pre Test	Strongly Disagree	0	0	0	0	0
	Disagree	0	0	0	0	0
	Neither	0	0	0	1	0
	Agree	0	0	0	3	0
	Strongly Agree	3	0	0	5	9

2 Missing Values

Using the Sign test for ordinal data, there is evidence of a significant difference between Pre and Post test results at the 0.05 significance level. (The p-value is 0.0301 where the p-value the probability of getting this result by chance alone. Hence, no evidence that the results of the two tests differ). On average, subjects gave lower scores on the post test.

Question 18: A person's diet affects his/her mind.

		Post Test				
		Strongly Disagree	Disagree	Neither Agree nor Disagree	Agree	Strongly Agree
Pre Test	Strongly Disagree	0	0	0	0	0
	Disagree	0	0	0	0	0
	Neither	0	0	0	0	1
	Agree	0	0	0	1	1
	Strongly Agree	0	0	0	3	15

line I date there is no evidence of a significa

2 Missing Values

Using the Sign test for ordinal data, there is no evidence of a significant difference between Pre and Post test results at the 0.05 significance level. (The p-value is 1.00 where the p-value the

probability of getting this result by chance alone. Hence, no evidence that the results of the two tests differ).

Question 19: Proper diet can prevent lifestyle diseases

		Post Test				
		Strongly Disagree	Disagree	Neither Agree nor Disagree	Agree	Strongly Agree
Pre Test	Strongly Disagree	0	0	0	0	0
	Disagree	0	0	0	0	1
	Neither	0	0	0	0	1
	Agree	0	0	0	3	0
	Strongly Agree	0	0	0	2	14

2 Missing Values

Using the Sign test for ordinal data, there is no evidence of a significant difference between Pre and Post test results at the 0.05 significance level. (The p-value is 1.00 where the p-value the probability of getting this result by chance alone. Hence, no evidence that the results of the two tests differ).

Question 20: A person's diet affects his/her spirituality.

		Post Test				
		Strongly Disagree	Disagree	Neither Agree nor Disagree	Agree	Strongly Agree
Pre Test	Strongly Disagree	0	0	0	0	0
	Disagree	0	0	0	2	0
	Neither	0	0	0	1	2
	Agree	0	0	0	2	2
	Strongly Agree	0	0	0	0	13

1 Missing Value

Using the Sign test for ordinal data, there is evidence of a significant difference between Pre and Post test results at the 0.05 significance level. (The p-value is 0.0156 where the p-value the probability of getting this result by chance alone. Hence, no evidence that the results of the two tests differ). On average, subjects' scores increased on the post-test.

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